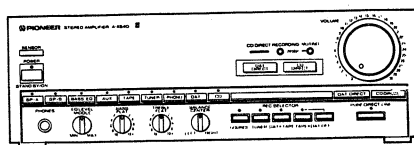


Service Manual



**ORDER NO.
ARP1577**

STEREO AMPLIFIER

A-X540

A-X440

A-X340

MODELS A-X540, A-X440 AND A-X340 HAVE FOUR VERSIONS:

Type	Applicable model			Power requirement	Export destination
	A-X540	A-X440	A-X340		
HE	○	○	○	AC220V, 240V (switchable)	European continent
HB	○	○	○	AC220V, 240V (switchable)	United Kingdom
HEZ	○	○	○	AC220V, 240V (switchable)	West Germany
SD	○	○	—	AC110V, 120V-127V, 220V, 240V (switchable)	Kingdom of Saudi Arabia and general market

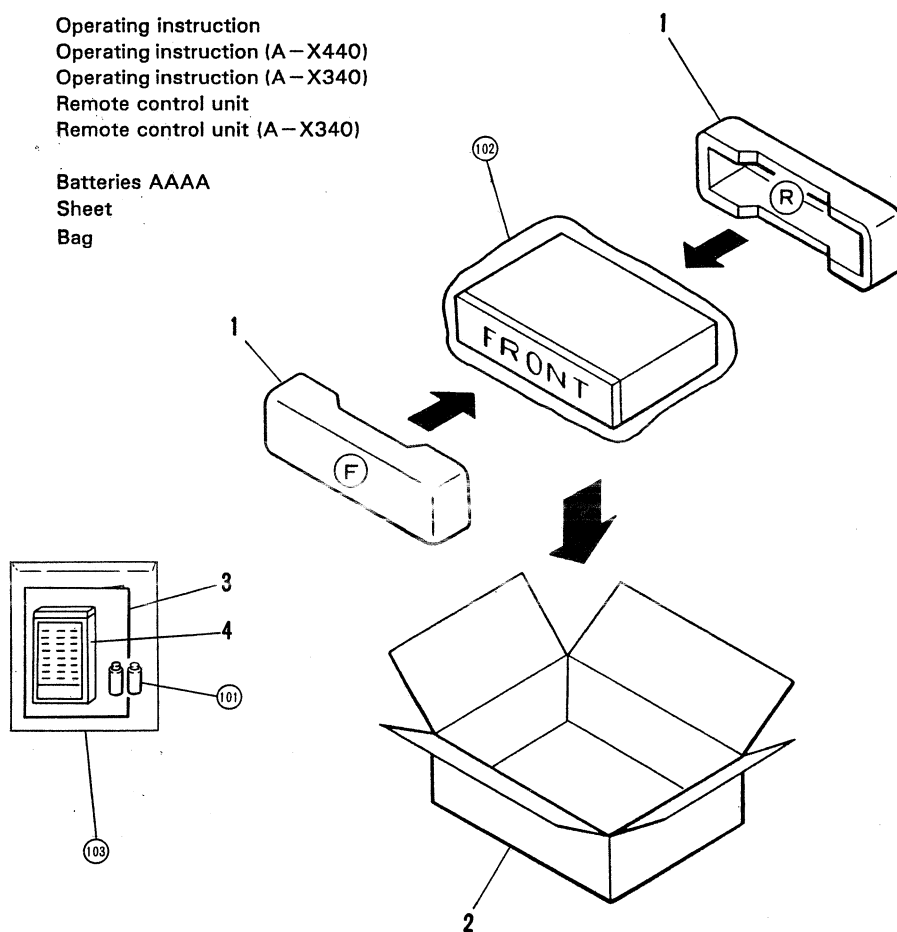
- This service manual is applicable to the HE and HB types.
- For the HB type, refer to page 48.
- For the other types, refer to additional service manual.

CONTENTS

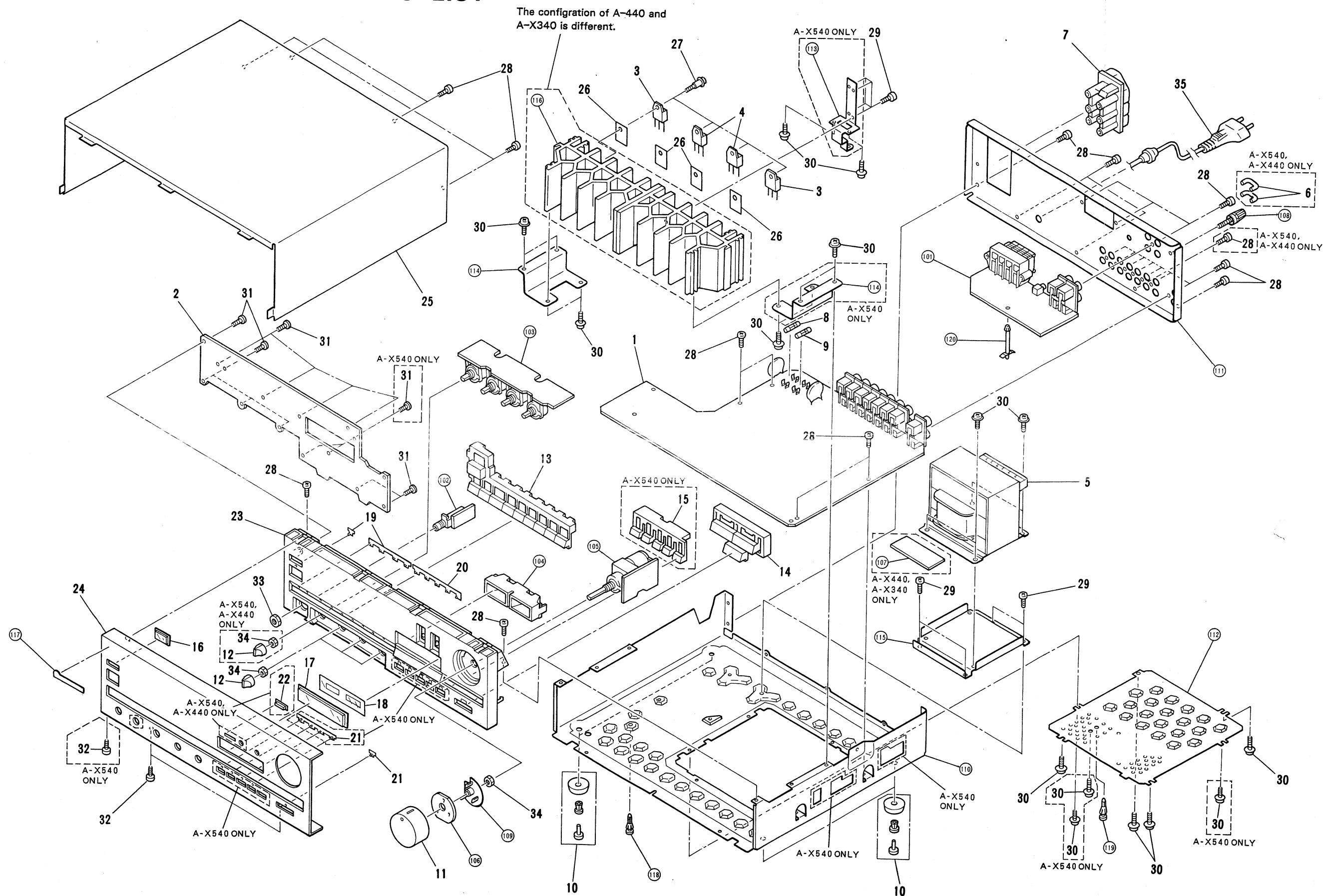
1. PACKING	2	5. FOR HB TYPE	48
2. EXPLODED VIEWS AND PARTS LIST	3	6. IC INFORMATION	50
3. SCHEMATIC DIAGRAM AND P.C. BOARDS CONNECTION DIAGRAM ...	7	7. SPECIFICATION	53
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1. PACKING

Mark	No.	Parts No.	Description
	1	AHA1069	Pad
	2	AHD1414	Packing case
		AHD1415	Packing case (A-X440)
		AHD1416	Packing case (A-X340)
	3	ARE1080	Operating instruction
		ARE1081	Operating instruction (A-X440)
		ARE1082	Operating instruction (A-X340)
	4	AXD1053	Remote control unit
		AXD1052	Remote control unit (A-X340)
	101		Batteries AAAA
	102		Sheet
	103		Bag



2. EXPLODED VIEWS AND PARTS LIST



- Parts with the Δ mutation.
- For your part and \star .
- ★★ GENI
This class number, to
- Parts more than usual

Mark	No.
------	-----

2

13

- NOTES:
- Parts without part number cannot be supplied.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - For your parts Stock Control, the fast moving items are indicated with the marks $\star\star$ and \star .
 - $\star\star$ **GENERALLY MOVES FASTER THAN \star**
 - This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
 - Parts marked by “ \odot ” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List

Mark	No.	Parts No.	Description
	1	AWZ1770	AF main assembly
		AWZ1777	AF main assembly (A-X440)
		AWZ1781	AF main assembly (A-X340)
	2	AWZ1772	Control main assembly
		AWZ1779	Control main assembly (A-X440)
		AWZ1782	Control main assembly (A-X340)
$\star\star$	3	2SA1302	Transistor (Q3,Q4)
		2SA1264N	Transistor (Q3,Q4) (A-X440)
		2SA1263N	Transistor (Q3,Q4) (A-X340)
$\star\star$	4	2SC3281	Transistor (Q1,Q2)
		2SC3181N	Transistor (Q1,Q2) (A-X440)
		2SC3180N	Transistor (Q1,Q2) (A-X340)
Δ \star	5	ATS1141	Power transformer (220V/240V,T1)
		ATS1142	Power transformer (220V/240V,T1) (A-X440)
		ATS1143	Power transformer (220V/240V,T1) (A-X340)
	6	AKM1019	Jumper plug
		AKM1004	Jumper plug (A-X440, A-X340)
Δ	7	AKP-502	AC socket (3P,AC OUTLET)
Δ $\star\star$	8	AEK-403	Fuse (T2.5A/250V,FU1)
Δ $\star\star$	9	AEK-403	Fuse (T2.5A/250V,FU2)
		AEK-017	Fuse (T2A/250V, FU2) (A-X440)
		AEK-018	Fuse (T1.25A/250V, FU2) (A-X340)
	10	AMR1285	Leg assembly
	11	AAB1044	Rotary knob (VOLUME)
		AAB1081	Rotary knob (VOLUME) (A-X440)
		AAB1082	Rotary knob (VOLUME) (A-X340)
	12	AAB1070	Rotary knob (BASS EQ LEVEL, BASS, TREBLE, BALANCE)
	13	AAD1382	Function knob (STAND-BY/ON, SP-A, SP-B, BASS EQ, AUX, TAPE, TUNER, PHONO, DAT, CD)
		AAD1383	Function knob (A-X340)

Mark	No.	Parts No.	Description
	14	AAD1384	Direct knob (DAT DIRECT, CD DIRECT, PURE DIRECT LINE)
		AAD1385	Direct knob (A-X340)
	15	AAD1386	REC SELECTOR knob (SOURCE, TUNER, DAT \blacktriangleright TAPE, TAPE \blacktriangleright DAT, OFF)
	16	AAK1333	Sencer acrylic lens
	17	AAK1473	Lamp panel
		AAK1474	Lamp panel (A-X340)
	18	AAK1475	Display seat
		AAK1476	Display seat (A-X340)
	19	AAK1482	Indicator lens L
		AAK1483	Indicator lens L (A-X340)
	20	AAK1484	Indicator lens R
	21	AAK1485	Indicator lens A
		AAK1486	Indicator lens A (A-X440, A-X340)
	22	AAK1487	DILECT REC lens
	23	AMB1397	Panel base
		AMB1398	Panel base (A-X440)
		AMB1399	Panel base (A-X340)
	24	ANB1226	Front panel
		ANB1227	Front panel (A-X440)
		ANB1228	Front panel (A-X340)
	25	AZN1802	Bonnet cover
		AZN1748	Bonnet cover (A-X440, A-X340)
	26	AEE1014	Mica sheet
		AEC-818	Mica sheet (A-X440, A-X340)
	27	ABA-297	Screw
	28	ABA-298	Screw
	29	ABA1009	Screw
	30	ABA1011	Screw
	31	BBZ26P080FMC	Screw
	32	BBZ30P080FZK	Screw
	33	ABN-065	Nut
	34	NK90FUC	Nut
Δ	35	ADG1021	AC power cord

Mark	No.	Parts No.	Description
	101		SP assembly
	102		HEADPHONE assembly
	103		TONE assembly
	104		LAMP assembly
	105		VR assembly
	106		LED assembly
	107		CONNECTOR assembly
	108		Terminal (GND)
	109		VOL PCB holder
	110		Chassis
	111		Rear panel
	112		Bottom plate
	113		Heat sink holder A
	114		Heat sink holder B
	115		Trans holder
	116		Heat sink
	117		Name plate
	118		Spacer
	119		PCB spacer
	120		PCB spacer

Line voltage selection (HE, HB TYPES)

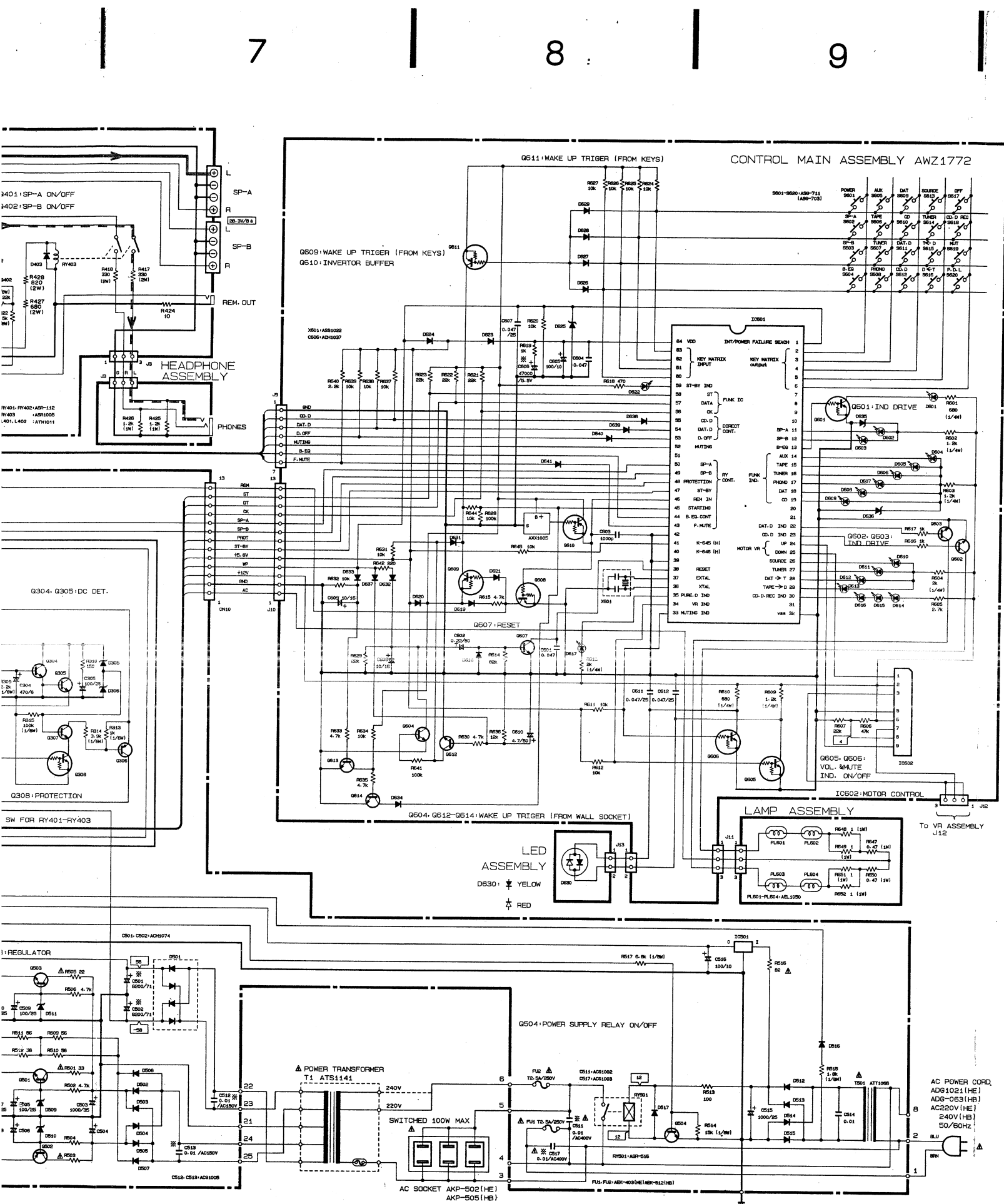
Line voltage can be changed with following steps.

1. Descomment the AC power cord.
2. Remove the top cover.
3. Change the connection wire (To Power transformer) of Terminal No. 3 (White) as follows.

Voltage	Terminal No. 3	Terminal No. 5
220V	White	.....
240V	.....	White

4. Stick the voltage level on the rear panel.

Part No.	Description
AAX-193	220V level
AAX-192	240V level



AF main assembly (AWZ1770)

Q3,Q4 Transistor 2SA1302
Q1,Q2 Transistor 2SC3281

IC101 M5218P
IC501 M5278L56
IC201,IC202 PA0016
IC103 TC9163N
IC102 TC9164N

IC104 μ PD6362C
Q308 RN1201
(DTC143ES)
Q303 RN2203
(DTA124ES)

Q105,Q106 2SA1048
Q209,Q210 2SA1145
Q215,Q216 2SA968

Q201-Q204 2SA992
Q306,Q502 2SB560
Q207,Q208,Q301,Q302 2SC1845
Q213,Q214 2SC2238
Q307,Q504 2SC2240

Q304,Q305 2SC2458
Q211,Q212 2SC2705
Q101-Q104 2SC2878
Q501 2SD438
Q503 2SD880

D501 D5SB20F
D207,D208 HZS5BLL
D205,D206 HZS5CLL
D305 RD13ESB
D511 RD13ESB1

D509,D510 RD16ESB3

D306 RD5.6ESB
D502-D507,D512-D515 S5566
(11E2)

D201-D204,D209-D212, 1SS252
Q301-D304,D516,D517

Control main assembly (AWZ1772)

IC601 PDG022
IC602 TA7291S

Q601,Q605,Q606,Q608 RN1201
(DTC143ES)

Q609-Q611 RN2201
(DTA143ES)
Q602,Q603 2SC2235
Q607,Q612-Q614,Q604 2SC2458

D614-D616 AEL1053
D602-D613,D617,D622 AEL1072
D601 AEL1073
D635,D636 RD3.0ESB
D625 RD4.7ESB2

D618-D621,D623,D624, 1SS252
D626-D629,D631-D634,
D637-D641

1. RESISTORS:
Indicated in Ω , $\frac{1}{4}W$, $\frac{1}{2}W$, $\pm 5\%$ tolerance unless otherwise noted k: k Ω ,
M: M Ω , (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$ (M): $\pm 20\%$ tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
 \square : Signal voltage of 100 W+100 W, 8 Ω output (1 kHz)
 \square : DC voltage (V) at no input signal
Value in () is DC voltage at rated power.
 \square mA: DC current at no input signal

4. OTHERS:
 \blacktriangleright : Signal route.
 \odot : Adjusting point.
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
* marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCH

S601 POWER	S611 DAT.D
S602 SP-A	S612 CD.D
S603 SP-B	S613 SOURCE
S604 B.EQ	S614 TUNER
S605 AUX	S615 D \rightarrow T
S606 TAPE	S616 T \rightarrow D
S607 TUNER	S617 OFF
S608 PHONO	S618 CD.D REC
S609 DAT	S619 MUT
S610 CD	S620 P.D.L

SP assembly

IC401 M5218PF
Q401,Q402 2SC2235
D401-D403 1SS252

TONE assembly

IC702 LC4966
IC701 M5218PF
Q705 RN1201
(DTC143ES)
Q706 RN2201
(DTA143ES)
Q701-Q704 2SC1740SLN

LED assembly

D630 LED AEL1071

A

B

C

D

1 2 3 4 5 6

Q610 Q608 Q614 Q613
Q611 Q609
Q601

IC601

Q607 Q612
IC602 Q602 Q603

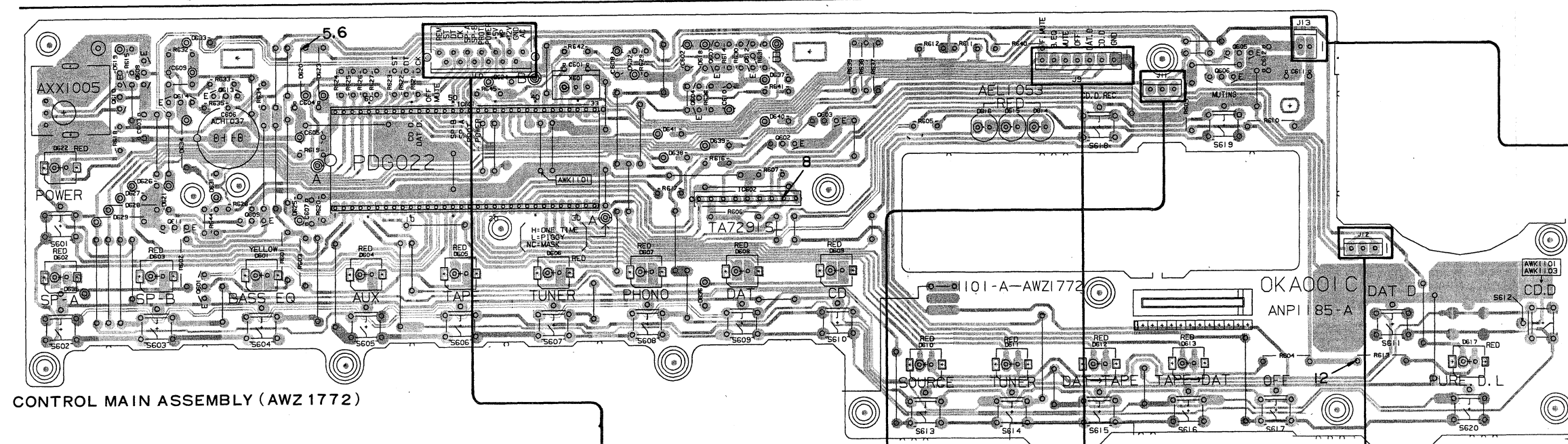
Q606 Q605

AC POW
AC 220
240
50/60Hz

LED ASSEMBLY

AC SOCKET

SWITCHED 100W MAX



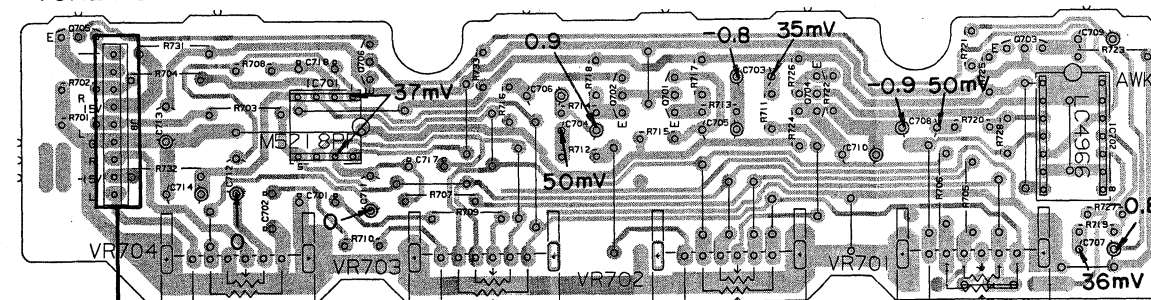
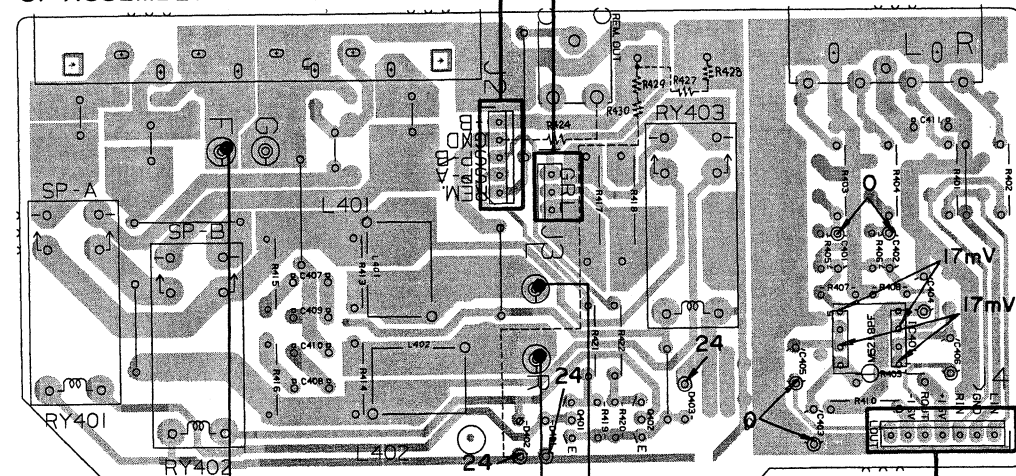
HEADPHONE ASSEMBLY

LAMP ASSEMBLY

VR ASSEMBLY

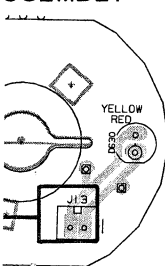
SP ASSEMBLY

TONE ASSEMBLY



1 2 3 4 5 6

ASSEMBLY



AC POWER CORD
AC 220V (HE)
240V (HB)
50/60Hz

BRN

BLU

T1 POWER TRANSFORMER

240V

220V

AC SOCKET

SWITCHED 100W MAX

AF MAIN ASSEMBLY (AWZ 1770)

Q215 Q213

IC201 Q209 Q211

Q207

Q203 Q201

IC501 Q501-Q504

Q301 Q302

Q202 Q204

Q214 Q208

Q303-Q308

Q210 Q212

IC202

IC102

Q216

Q101-Q106

IC103

IC101

IC104

NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
	IC
	Switch
	Relay
	Coil
	Filter
	Variable resistor or Semi-fixed resistor

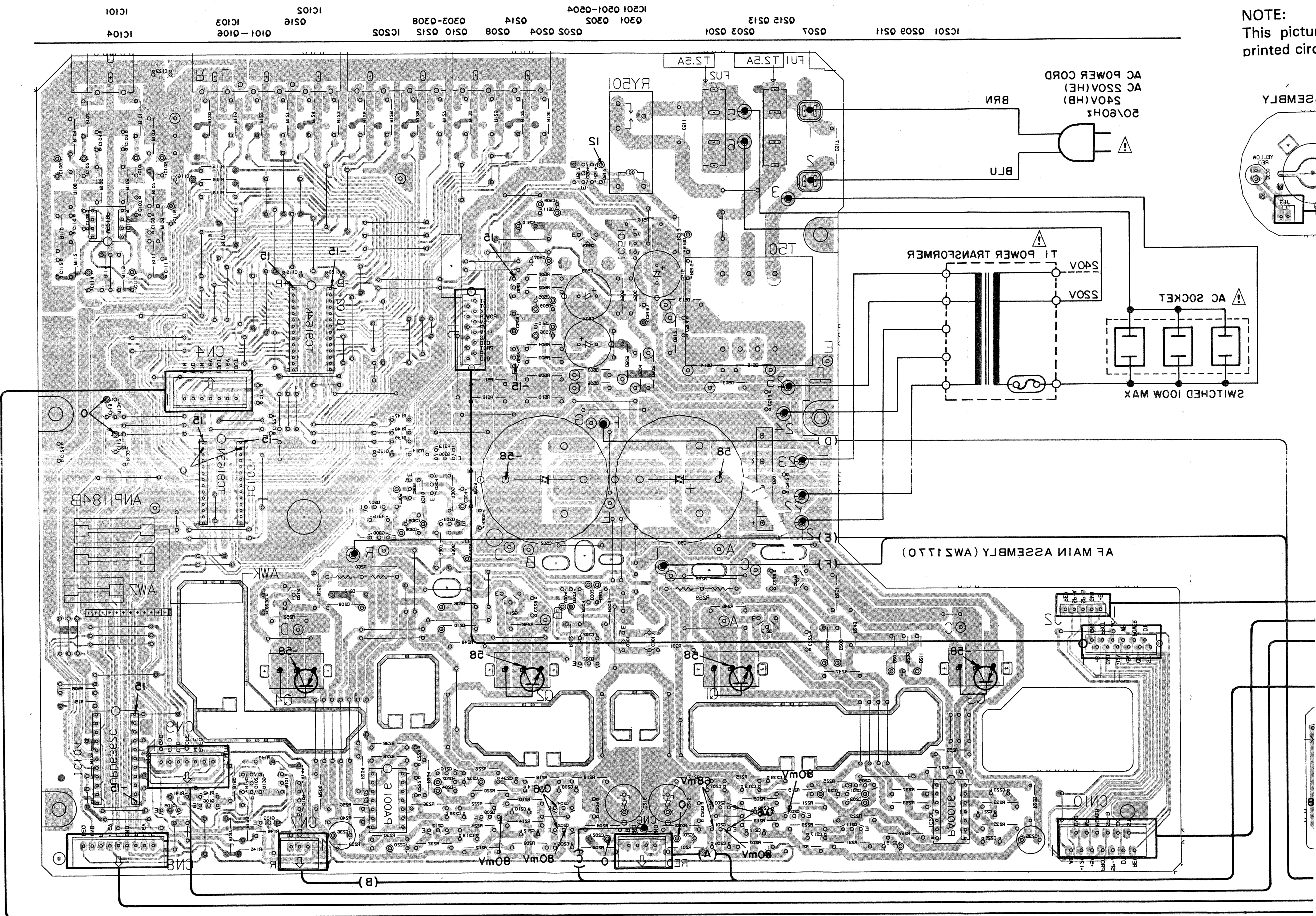
3. The capacitor terminal marked with (⊖) (double circles) shows negative terminal.
4. The diode terminal marked with (⊖) (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

A

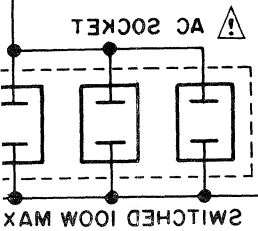
B

C

D



AC
AC
50



D

NOTE:
This picture shows the foil side of the
printed circuit.

0500 0502

0503 0505 0507

IC501

0504

0508 0510

A

B

C

D

CONTROL MAIN ASSEMBLY (AWS 1229)

SP ASSEMBLY

VR ASSEMBLY

CONNECTOR ASSEMBLY

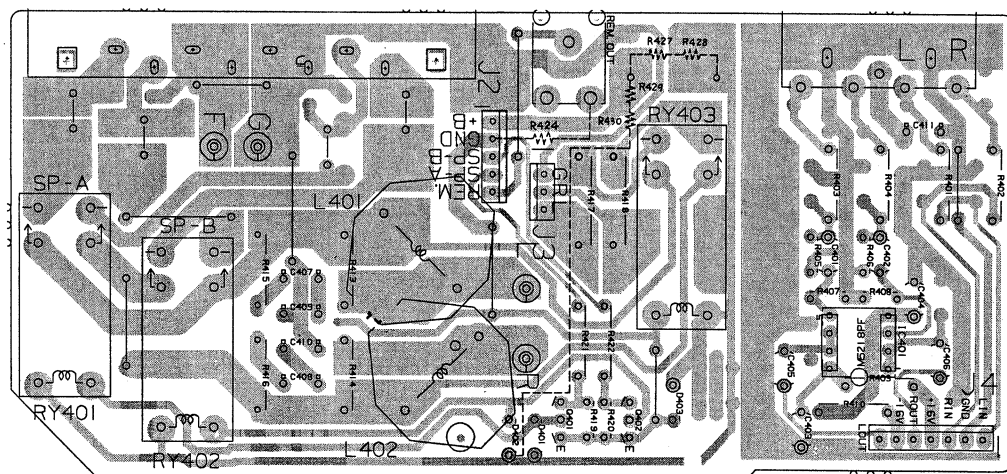
AF MAIN ASSEMBLY (AWS 1227)

0501 0502 0504

IC501 0508 0511

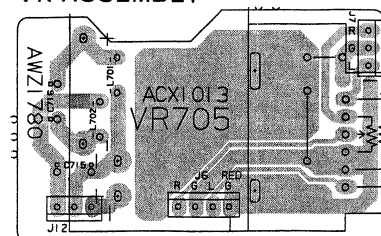


SP ASSEMBLY

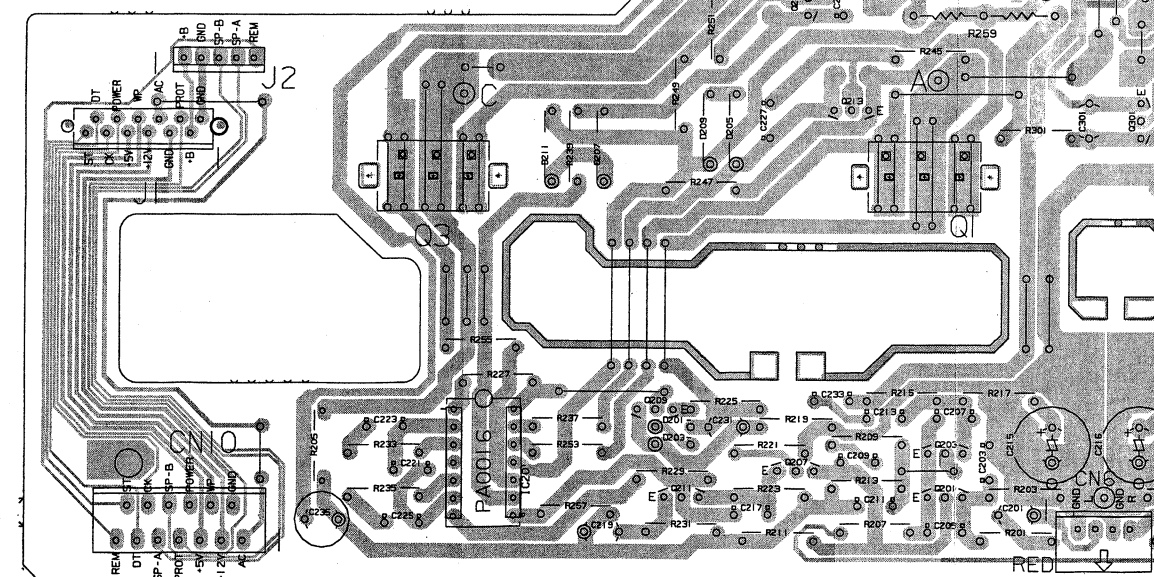
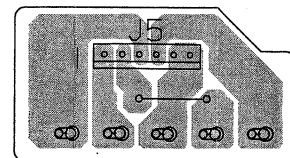


D

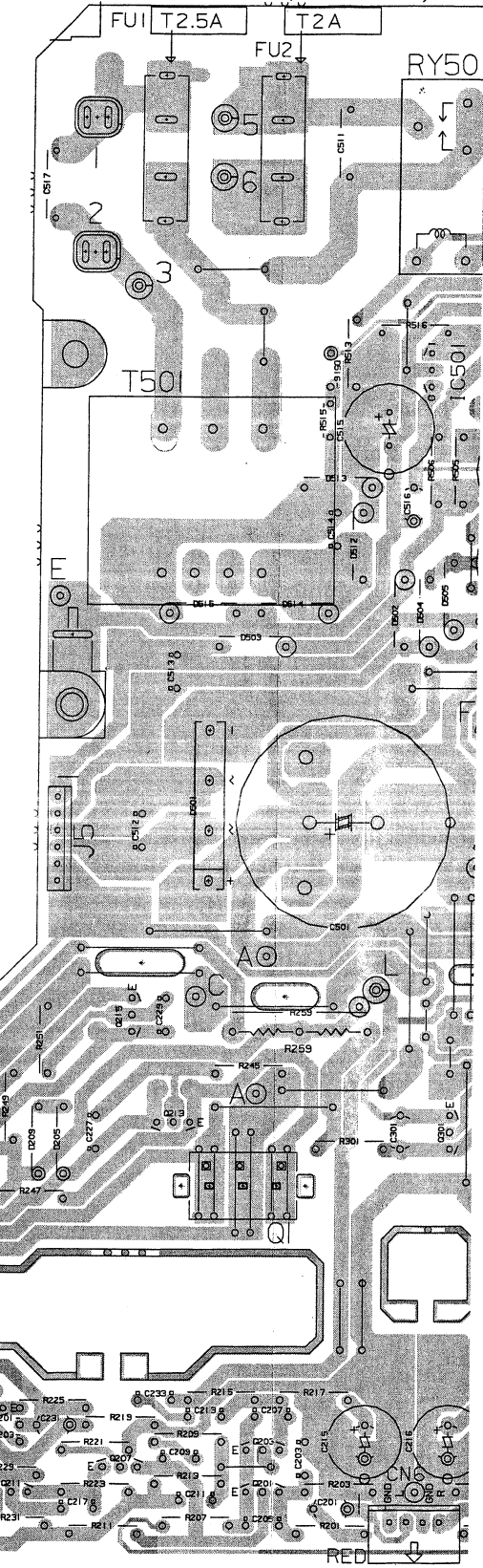
VR ASSEMBLY



CONNECTOR ASSEMBLY



AF MAIN ASSEMBLY (AWZ 1777)



4

5

6

7

8

9

AF MAIN ASSEMBLY (AWZ 1777)

Q606 Q605

A

B

C

D

ASSEMBLY

CONNECTOR ASSEMBLY.

[illegible]

4

5

6

7

8

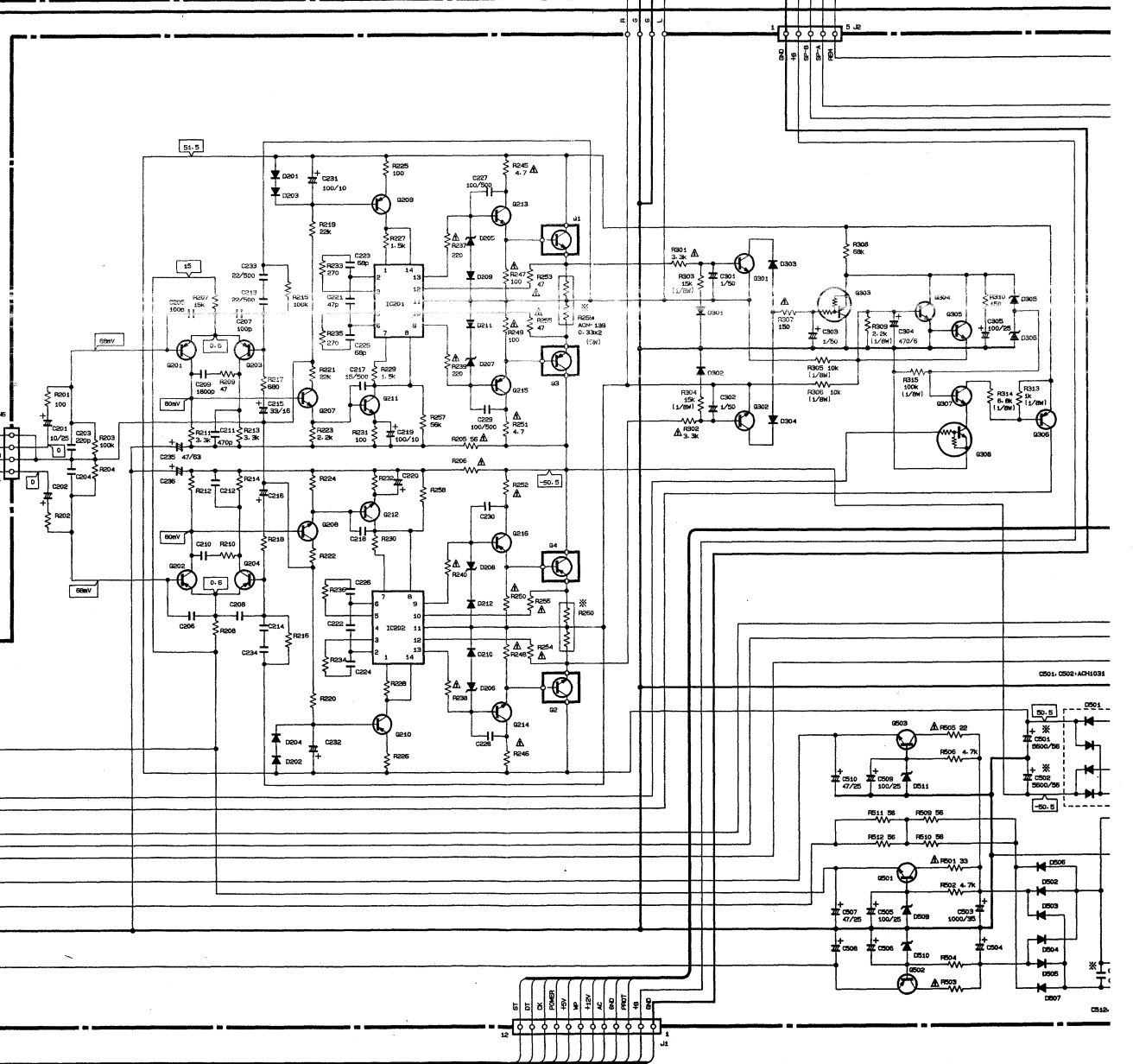
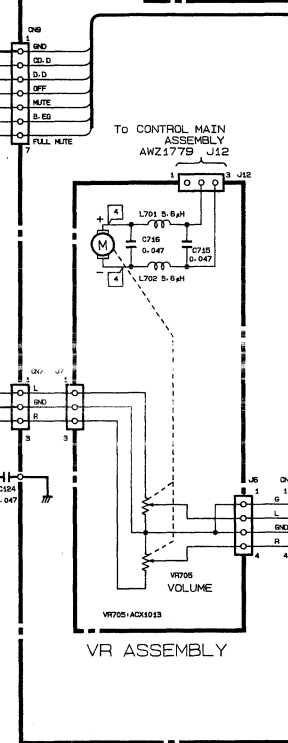
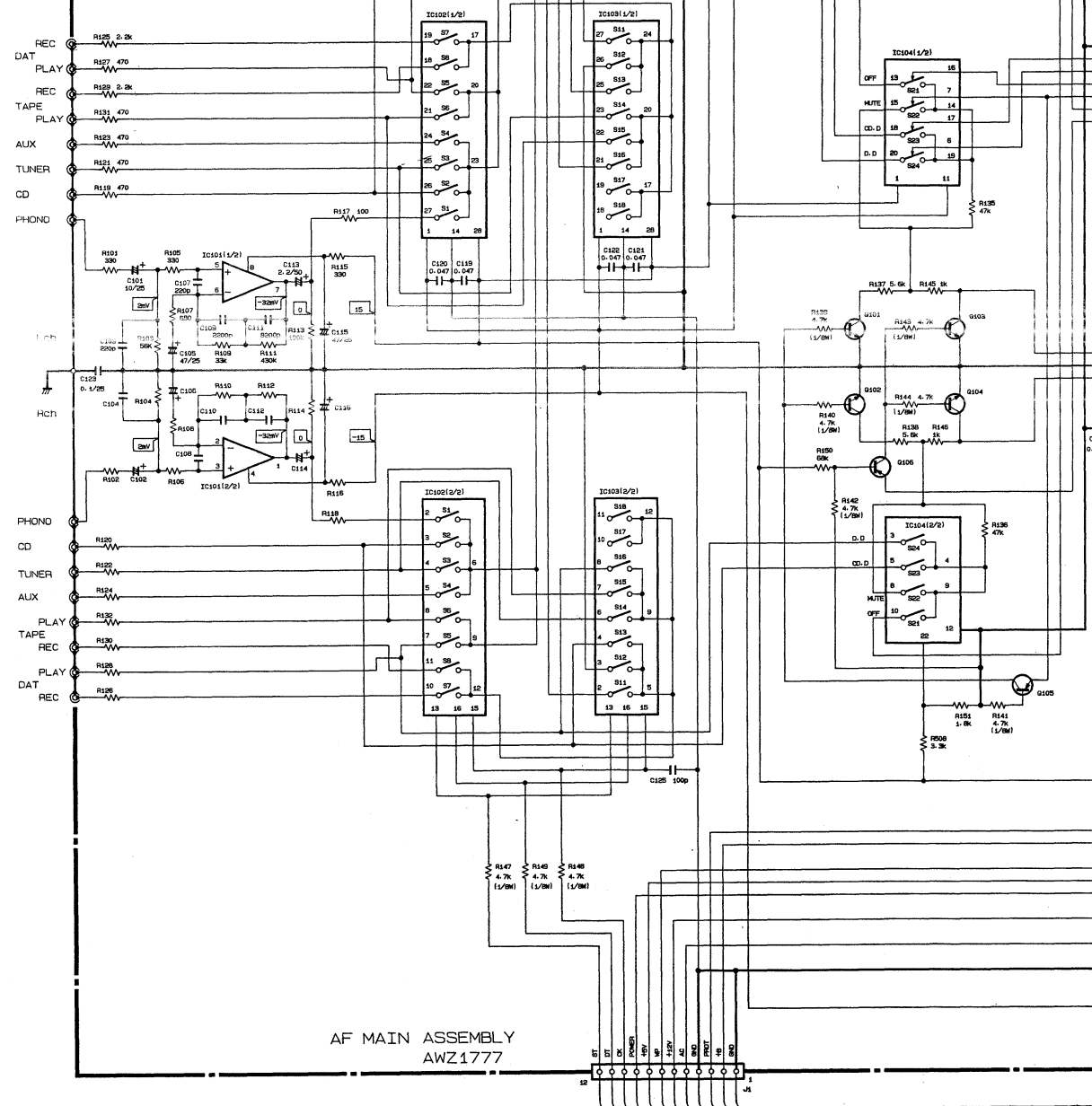
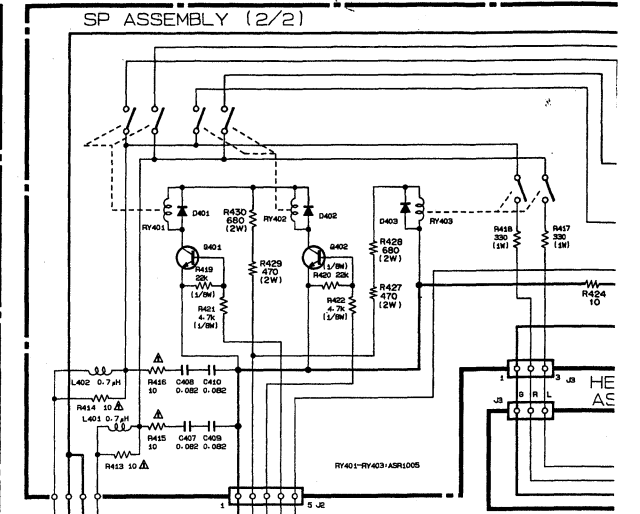
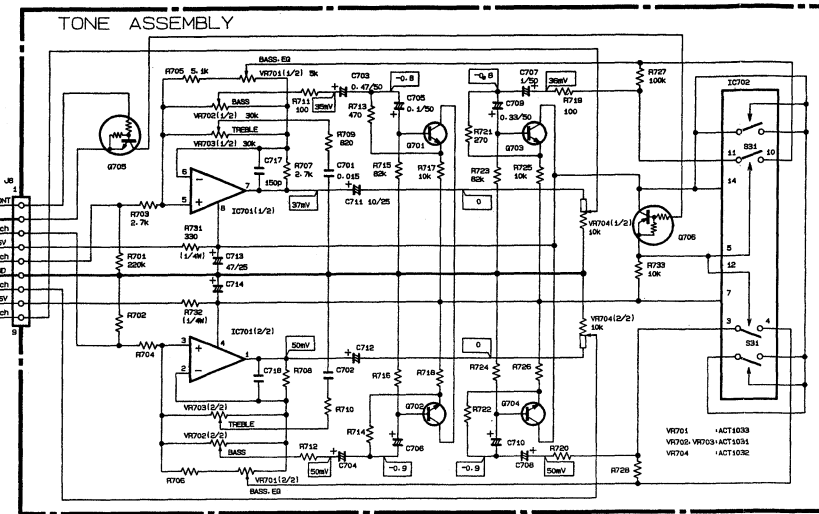
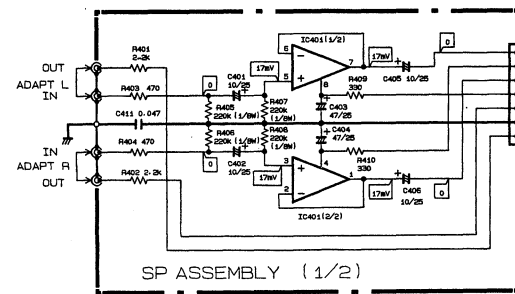
9

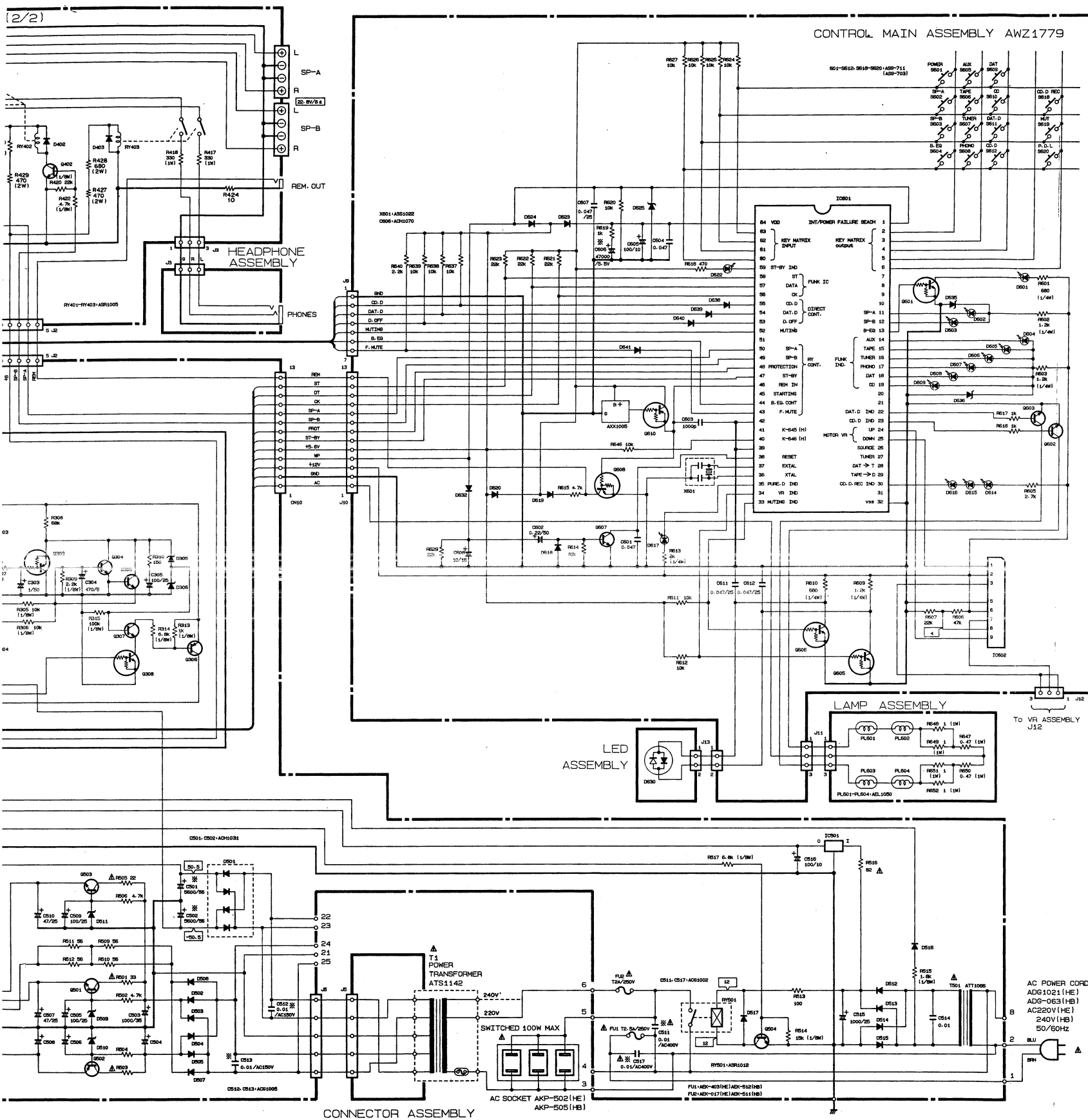
A

B

C

D





AF main assembly (AWZ1777)

Q3,Q4 Transistor	2SA1264N
Q1,Q2 Transistor	2SC3181N
IC101	M5218P
IC501	M5278L56
IC201,IC202	PA0016
IC103	TC9163N
IC102	TC9164N
IC104	μPD6362C
Q308	RN1201 (DTC143ES)
Q303	RN2203 (DTA124ES)
Q105,Q106	2SA1048
Q215,Q216	2SA5 5
Q201-Q204,Q209, Q210	2SA992
Q306,Q502	2SB560
Q213,Q214	2SC2235
Q207,Q208,Q211,Q212,Q301, Q302,Q307,Q504	2SC2240
Q304,Q305	2SC2458
Q101-Q104	2SC2878
Q501	2SD438
Q503	2SD880
D207,D208	HZS4BLL
D205,D206	HZS5BLL
D501	RBV402
D305	RD13ESB
D511	RD13ESB1
D509,D510	RD16ESB3
D306	RD5.6ESB
D502-D507,D512-D515	S5566 (11E2)
D201-D204,D209-D212, D301-D304,D516,D517	1SS252

Control main assembly (AWZ1779)

IC601	PDG022
IC602	TA7291S
Q601,Q605,Q606,Q608	RN1201 (DTC143ES)
Q610	RN2201 (DTA143ES)
Q602,Q603	2SC2235
Q607	2SC2458
D614-D616	AEL1053
D602-D609,D617,D622	AEL1072
D601	AEL1073
D635,D636	RD3.0ESB
D625	RD4.7ESB2
D618-D620,D623,D624,D632, D638-D641	1SS252

1. RESISTORS:
Indicated in Ω, ¼W, ½W, ¾W, ±5% tolerance unless otherwise noted k: kΩ,
M: MΩ, (F): ±1%, (G): ±2%, (K): ±10% (M): ±20% tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:

□: Signal voltage at 62 W+ 62 W, 8Ω output (1 kHz)

□: DC voltage (V) at no input signal
Value in () is DC voltage at rated power.

◁ mA: DC current at no input signal

4. OTHERS:

➔: Signal route.

⊗: Adjusting point.

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

* marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCH

S601 POWER	S609 DAT
S602 SP-A	S610 CD
S603 SP-B	S611 DAT.D
S604 B.EQ	S612 CD.D
S605 AUX	S618 CD.D REC
S606 TAPE	S619 MUT
S607 TUNER	S620 P.D.L
S608 PHONO	

SP assembly

IC401	M5218PF
Q401,Q402	2SC2240
D401-D403	1SS252

TONE assembly

IC702	LC4966
IC701	M5218PF
Q705	RN1201 (DTC143ES)
Q706	RN2201 (DTA143ES)
Q701-Q704	2SC1740SLN

LED assembly

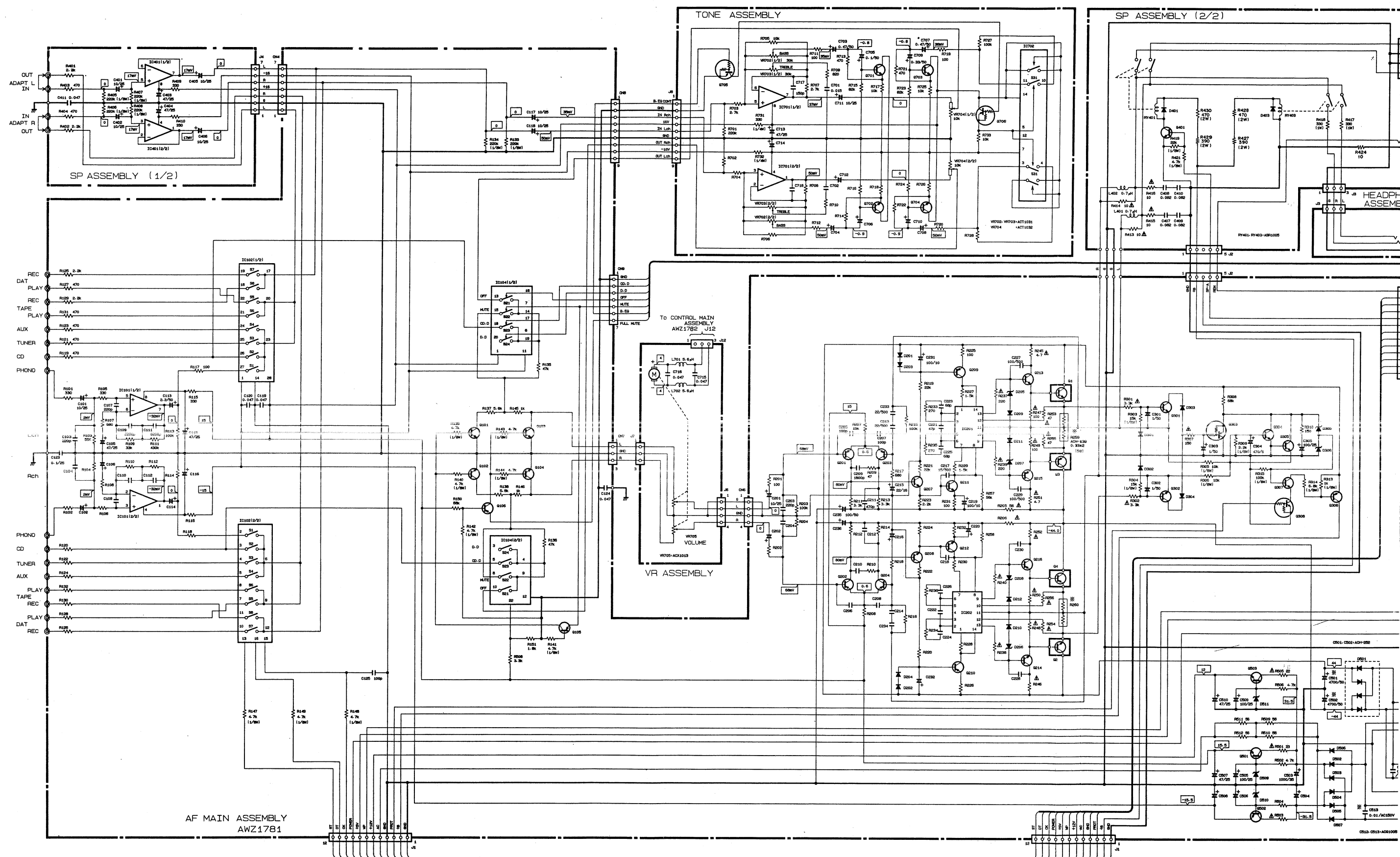
D630 LED	AEL1071
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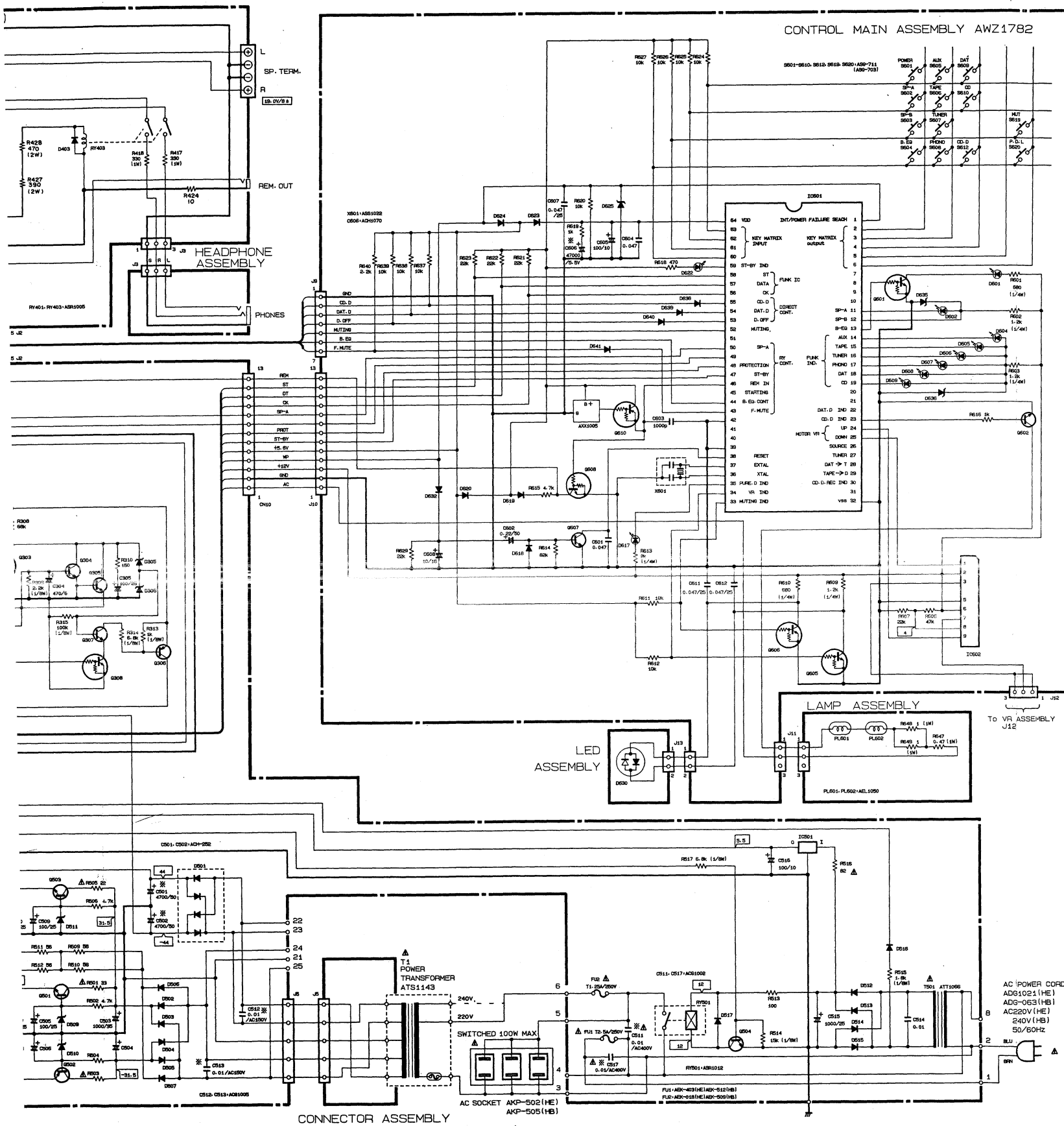
A

B

C

D





AF main assembly (AWZ1781)

Q3,Q4 Transistor 2SA1263N
Q1,Q2 Transistor 2SC3180N

IC101 M5218P
IC501 M5278L56
IC201,IC202 PA0016
IC102 TC9164N
IC104 μ PD6362C

Q308 RN1201
(DTC143ES)
Q303 RN2203
(DTA124ES)
Q105,Q106 2SA1048
Q215,Q216 2SA965

Q201,Q202,Q203,Q204,Q209, Q210 2SA992
Q306,Q502 2SB560
Q213,Q214 2SC2235
Q207,Q208,Q211,Q212,Q301, Q302,Q307,Q504 2SC2240
Q304,Q305 2SC2458

Q101-Q104 2SC2878
Q501 2SD438
Q503 2SD880

D207,D208 HZS4BLL
D205,D206 HZS5BLL
D501 RBV402
D305 RD13ESB
D511 RD13ESB1

D509,D510 RD16ESB3
D306 RD5.6ESB
D502-D507,D512-D515 S5566
(11E2)
1SS252

D201-D204,D209-D212, D301-D304,D516,D517

Control main assembly (AWZ1782)

IC601 PDG022
IC602 TA7291S

Q601,Q605,Q606,Q608 RN1201
(DTC143ES)
Q610 RN2201
(DTA143ES)
Q602 2SC2235
Q607 2SC2458

D602,D604,D605-D609,D617, D622 AEL1072
D601 AEL1073
D635,D636 RD3.0ESB
D625 RD4.7ESB2

D618-D620,D623,D624,D632, D638-D641 1SS252

1. RESISTORS:
Indicated in Ω , $\frac{1}{4}W$, $\frac{1}{2}W$, $\pm 5\%$ tolerance unless otherwise noted k: k Ω ,
M: M Ω , (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$ (M): $\pm 20\%$ tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
 ∇ : Signal voltage at 45 W+ 45 W, 8 Ω output (1kHz)
 \square : DC voltage (V) at no input signal
Value in () is DC voltage at rated power.
 \rightarrow mA: DC current at no input signal

4. OTHERS:
 \rightarrow : Signal route.
 \odot : Adjusting point.
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
*: marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCH

S601 POWER	S608 PHONO
S602 SP-A	S609 DAT
S603 SP-B	S610 CD
S604 B.EQ	S612 CD.D
S605 AUX	S619 MUT
S606 TAPE	S620 P.D.L
S607 TUNER	

SP assembly

IC401 M5218PF
Q401 2SC2240
D401,D403 1SS252

TONE

AF MAIN ASSEMBLY (AWZ 1781)

Q610 Q608

1C601

Q607

IC602 Q602

Q606 Q605

Q601

A

B

CONTROL MAIN ASSEMBLY (AWZ 1782)

SP ASSEMBLY

C

VR ASSEMBLY

LAMP ASSEMBLY

CONNECTOR ASSEMBLY

D

TONE ASSEMBLY

IC201 Q209 Q211

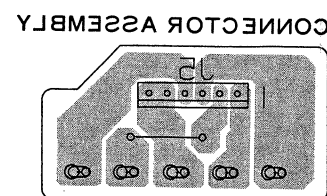
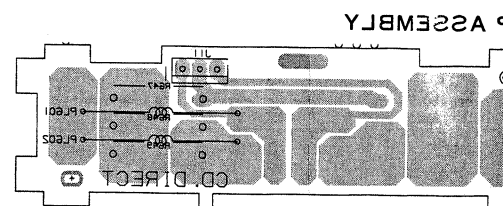
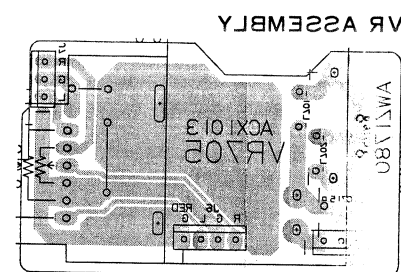
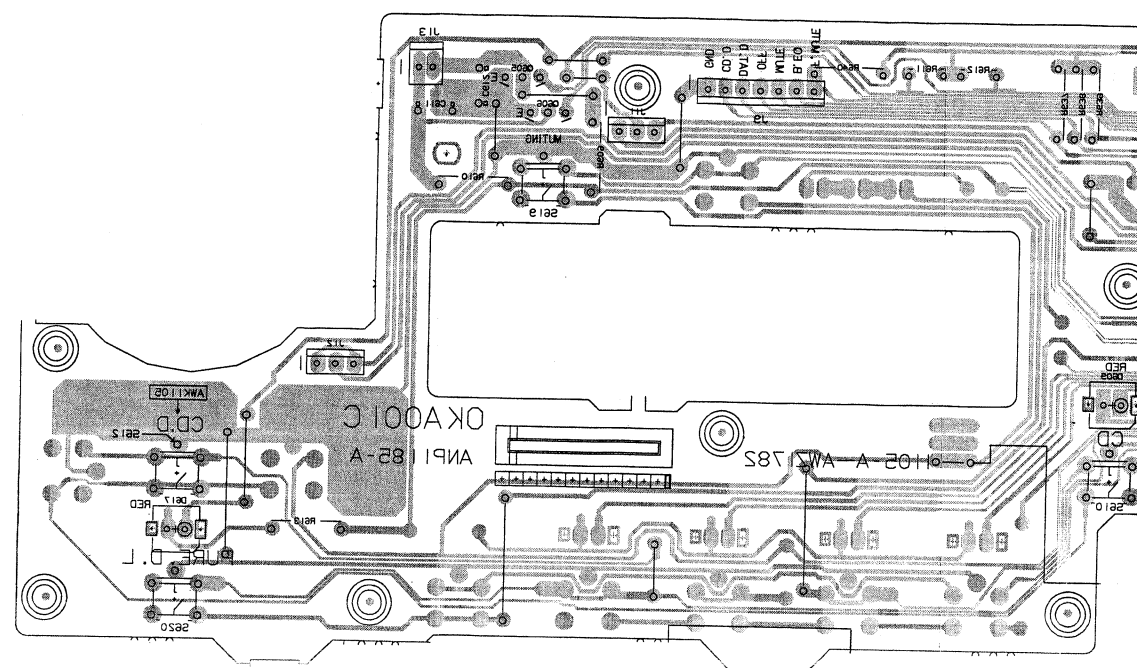
Q215 Q213
Q207 Q203 Q201

IC501 Q
Q301



This picture shows the toll side of the printed circuit.

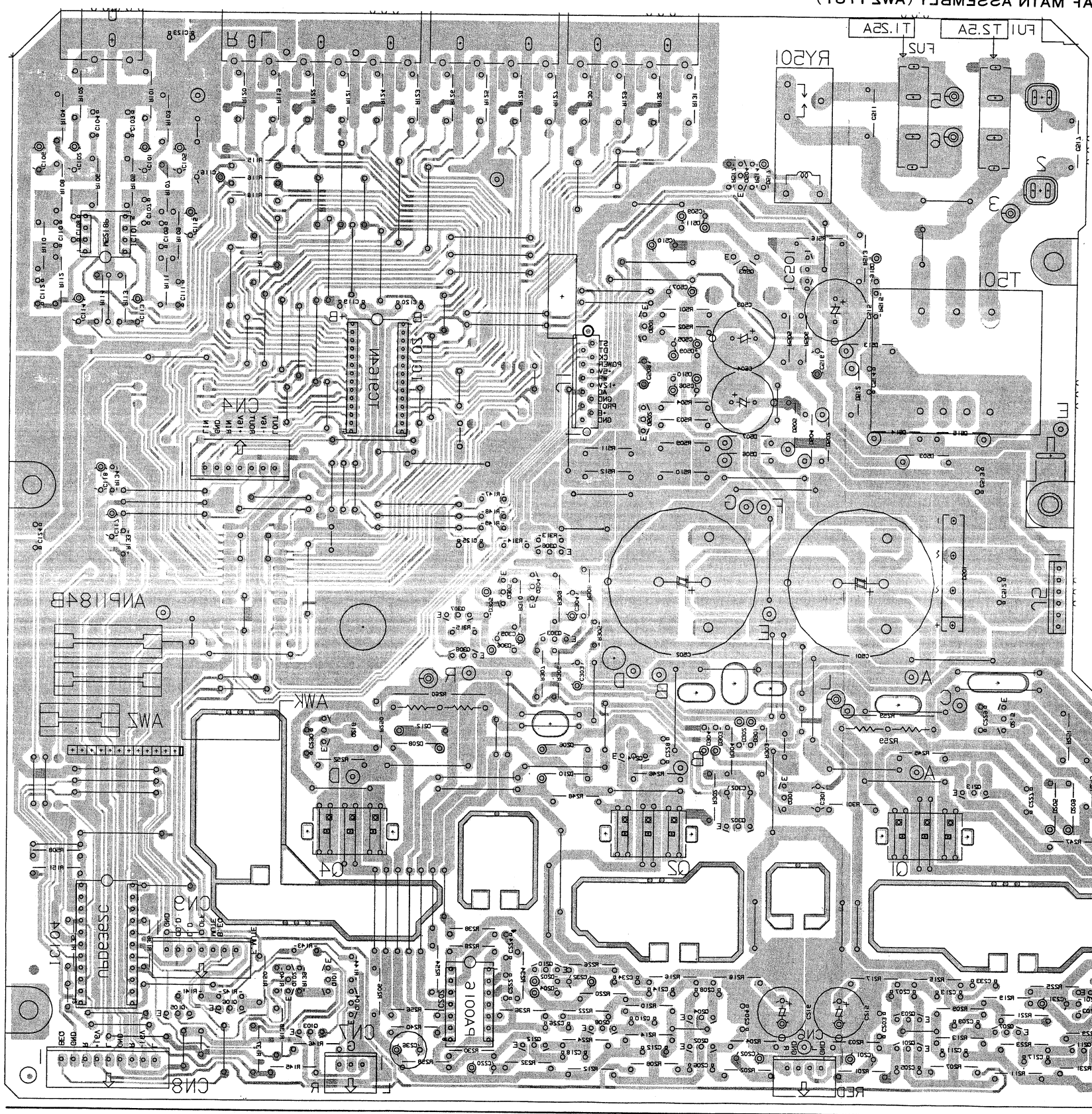
2020 2020



CONNECTOR ASSEMBLY

ASSEMBLY

VR ASSEMBLY



AF MAIN ASSEMBLY (AWS 1781)

IC101	IC104	IC105	IC106	IC107	IC108	IC109	IC110	IC111	IC112	IC113	IC114	IC115	IC116	IC117	IC118	IC119	IC120	IC121	IC122	IC123	IC124	IC125	IC126	IC127	IC128	IC129	IC130	IC131	IC132	IC133	IC134	IC135	IC136	IC137	IC138	IC139	IC140	IC141	IC142	IC143	IC144	IC145	IC146	IC147	IC148	IC149	IC150	IC151	IC152	IC153	IC154	IC155	IC156	IC157	IC158	IC159	IC160	IC161	IC162	IC163	IC164	IC165	IC166	IC167	IC168	IC169	IC170	IC171	IC172	IC173	IC174	IC175	IC176	IC177	IC178	IC179	IC180	IC181	IC182	IC183	IC184	IC185	IC186	IC187	IC188	IC189	IC190	IC191	IC192	IC193	IC194	IC195	IC196	IC197	IC198	IC199	IC200	IC201	IC202	IC203	IC204	IC205	IC206	IC207	IC208	IC209	IC210	IC211	IC212	IC213	IC214	IC215	IC216	IC217	IC218	IC219	IC220	IC221	IC222	IC223	IC224	IC225	IC226	IC227	IC228	IC229	IC230	IC231	IC232	IC233	IC234	IC235	IC236	IC237	IC238	IC239	IC240	IC241	IC242	IC243	IC244	IC245	IC246	IC247	IC248	IC249	IC250	IC251	IC252	IC253	IC254	IC255	IC256	IC257	IC258	IC259	IC260	IC261	IC262	IC263	IC264	IC265	IC266	IC267	IC268	IC269	IC270	IC271	IC272	IC273	IC274	IC275	IC276	IC277	IC278	IC279	IC280	IC281	IC282	IC283	IC284	IC285	IC286	IC287	IC288	IC289	IC290	IC291	IC292	IC293	IC294	IC295	IC296	IC297	IC298	IC299	IC300	IC301	IC302	IC303	IC304	IC305	IC306	IC307	IC308	IC309	IC310	IC311	IC312	IC313	IC314	IC315	IC316	IC317	IC318	IC319	IC320	IC321	IC322	IC323	IC324	IC325	IC326	IC327	IC328	IC329	IC330	IC331	IC332	IC333	IC334	IC335	IC336	IC337	IC338	IC339	IC340	IC341	IC342	IC343	IC344	IC345	IC346	IC347	IC348	IC349	IC350	IC351	IC352	IC353	IC354	IC355	IC356	IC357	IC358	IC359	IC360	IC361	IC362	IC363	IC364	IC365	IC366	IC367	IC368	IC369	IC370	IC371	IC372	IC373	IC374	IC375	IC376	IC377	IC378	IC379	IC380	IC381	IC382	IC383	IC384	IC385	IC386	IC387	IC388	IC389	IC390	IC391	IC392	IC393	IC394	IC395	IC396	IC397	IC398	IC399	IC400	IC401	IC402	IC403	IC404	IC405	IC406	IC407	IC408	IC409	IC410	IC411	IC412	IC413	IC414	IC415	IC416	IC417	IC418	IC419	IC420	IC421	IC422	IC423	IC424	IC425	IC426	IC427	IC428	IC429	IC430	IC431	IC432	IC433	IC434	IC435	IC436	IC437	IC438	IC439	IC440	IC441	IC442	IC443	IC444	IC445	IC446	IC447	IC448	IC449	IC450	IC451	IC452	IC453	IC454	IC455	IC456	IC457	IC458	IC459	IC460	IC461	IC462	IC463	IC464	IC465	IC466	IC467	IC468	IC469	IC470	IC471	IC472	IC473	IC474	IC475	IC476	IC477	IC478	IC479	IC480	IC481	IC482	IC483	IC484	IC485	IC486	IC487	IC488	IC489	IC490	IC491	IC492	IC493	IC494	IC495	IC496	IC497	IC498	IC499	IC500	IC501	IC502	IC503	IC504	IC505	IC506	IC507	IC508	IC509	IC510	IC511</
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10501 0509 0511 0505 0512 0513 0503 0504

Diagram of the connector assembly showing the internal wiring and the connector pins. The diagram is labeled "CONNECTOR ASSEMBLY" and shows a top-down view of the assembly. A central connector strip with 12 pins is shown, with a "12" label above it. Below the connector, there are five circular components, each with a pair of wires connected to it. The wiring is shown as lines connecting the connector pins to the circular components.

YBMBZ

LAMP ASSEMBLY

VR ASSEMBLY

CONTROL MAIN ASSEMBLY (AWS 1785)

SP ASSEMBLY

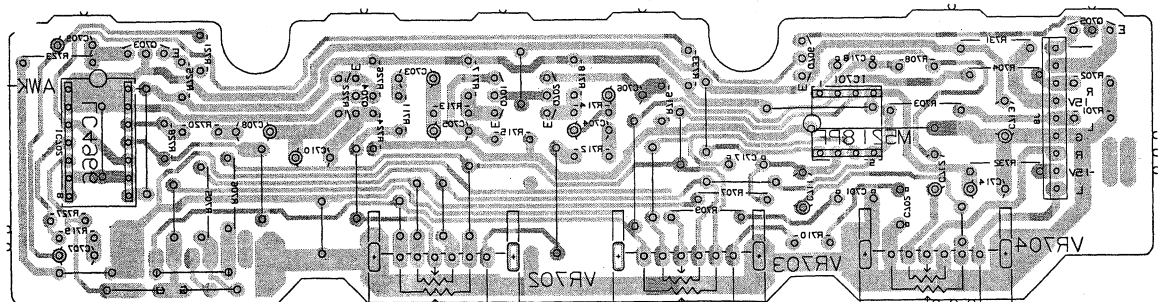
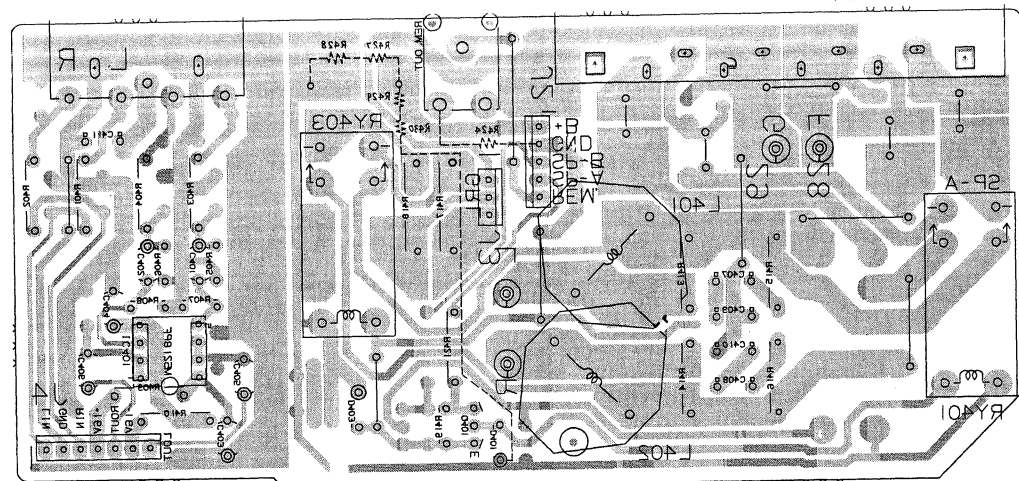
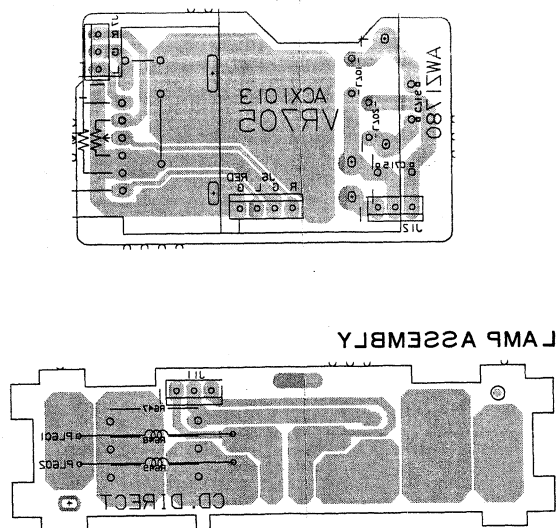
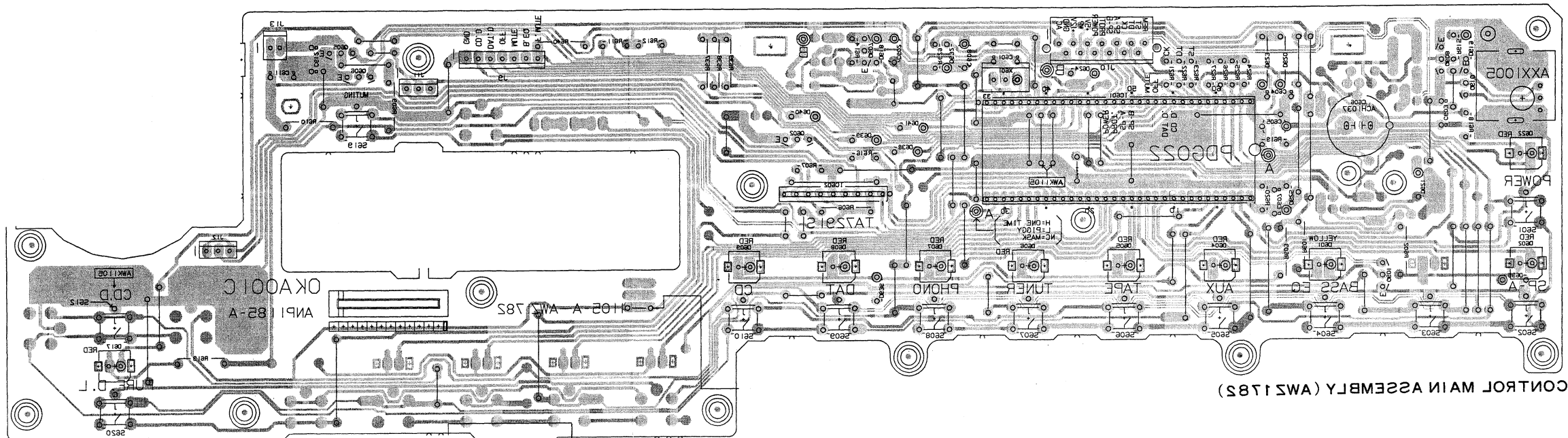
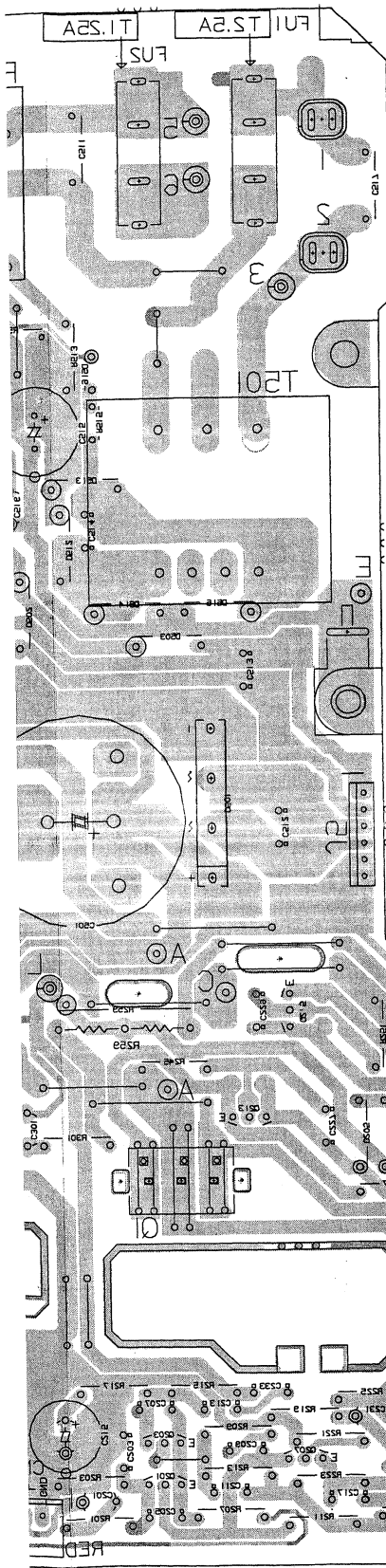
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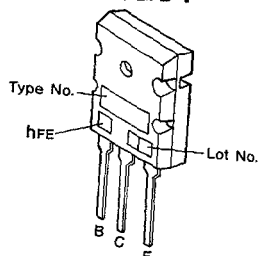
2020 2020

AF MAIN ASSEMBLY (AWS 1781

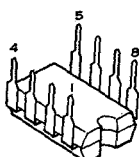


External Appearances of Transistor and ICs

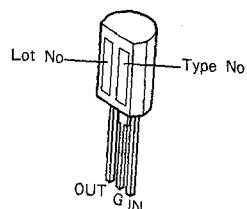
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2SC3281



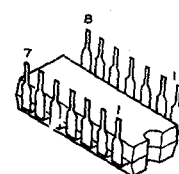
M5218P
M5218PF



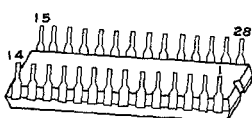
M5278L56



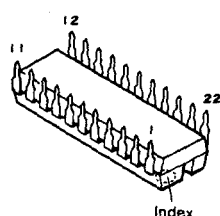
PA0016
LC4966



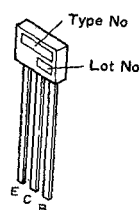
TC9163N
TC9164N



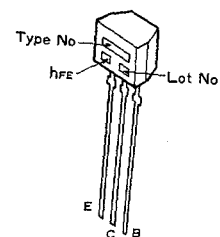
μ PD6362C



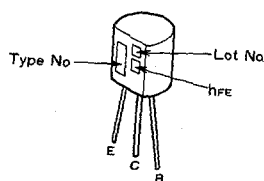
RN1201
RN2203
RN2201



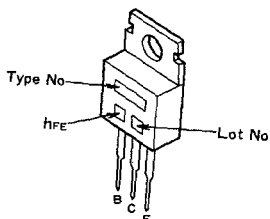
2SA1048
2SC2458



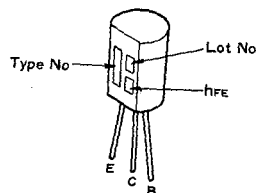
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2SC2240
2SC2878
2SC2705



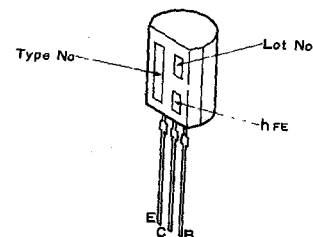
2SA968
2SD880
2SC2238



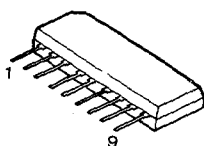
2SA992
2SC1845



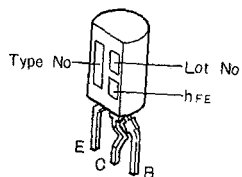
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2SD438



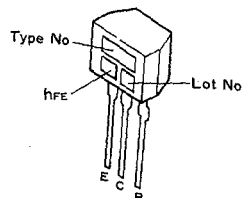
TA7291S



2SC2235
2SA965



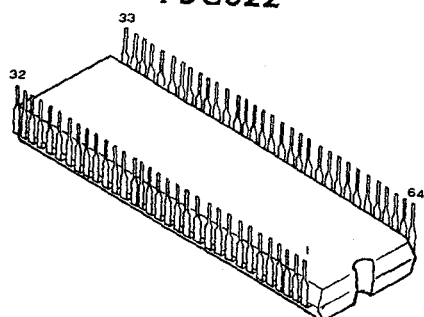
2SC1740SLN



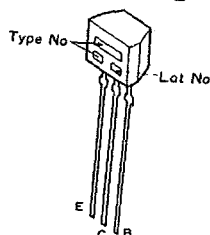
2SA1263N
2SC3180N
2SA1264N
2SC3181N



PDG022



DTA143ES
DTC143ES
DTA124ES



4. ELECTRICAL PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- For your parts Stock Control, the fast moving items are indicated with the marks $\star\star$ and \star .

$\star\star$ GENERALLY MOVES FASTER THAN \star

This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.

- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω	56×10^1	561.....	RD1/4PS $\text{\textcircled{5}}$ $\text{\textcircled{6}}$ $\text{\textcircled{1}}$ J
47k Ω	47×10^3	473.....	RD1/4PS $\text{\textcircled{4}}$ $\text{\textcircled{7}}$ $\text{\textcircled{3}}$ J
0.5 Ω	0R5.....		RN2H $\text{\textcircled{0}}$ $\text{\textcircled{R}}$ $\text{\textcircled{5}}$ K
1 Ω	010.....		RS1P $\text{\textcircled{0}}$ $\text{\textcircled{1}}$ $\text{\textcircled{0}}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	562×10^1	5621.....	RN1/4SR $\text{\textcircled{5}}$ $\text{\textcircled{6}}$ $\text{\textcircled{2}}$ $\text{\textcircled{1}}$ F
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4.1 A-X540

Miscellaneous Parts List

P.C. BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.	Mark	Symbol & Description	Part No.
	AF main assembly	AWZ1770	$\star\star$	IC104	μ PD6362C
	Control main assembly	AWZ1772	$\star\star$	Q308	RN1201
	SP assembly				(DTC143ES)
	HEADPHONE assembly		$\star\star$	Q303	RN2203
	TONE assembly				(DTA124ES)
	LAMP assembly		$\star\star$	Q105,Q106	2SA1048
	VR assembly		$\star\star$	Q209,Q210	2SA1145
	LED assembly		$\star\star$	Q215,Q216	2SA968

OTHERS

Mark	Symbol & Description	Part No.	Mark	Symbol & Description	Part No.
$\star\star$	Q3,Q4 Transistor	2SA1302	$\star\star$	Q201-Q204	2SA992
$\star\star$	Q1,Q2 Transistor	2SC3281	$\star\star$	Q306,Q502	2SB560
			$\star\star$	Q207,Q208,Q301,Q302	2SC1845
			$\star\star$	Q213,Q214	2SC2238
			$\star\star$	Q307,Q504	2SC2240
Δ \star	T1 Power transformer (220V/240V)	ATS1141	$\star\star$	Q304,Q305	2SC2458
	Jumper plug	AKM1019	$\star\star$	Q211,Q212	2SC2705
Δ	AC socket (3P OUTLET)	AKP-502	$\star\star$	Q101-Q104	2SC2878
Δ $\star\star$	FU1,FU2 Fuse (T2.5A/250V)	AEK-403	$\star\star$	Q501	2SD438
Δ	AC power cord	ADG1021	$\star\star$	Q503	2SD880
	Remote control unit	AXD1053	\star	D501	D5SB20F
			\star	D207,D208	HZS5BLL
			\star	D205,D206	HZS5CLL
			\star	D305	RD13ESB
			\star	D511	RD13ESB1

AF main assembly (AWZ1770)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.	Mark	Symbol & Description	Part No.
$\star\star$	IC101	M5218P	\star	D509,D510	RD16ESB3
$\star\star$	IC501	M5278L56	\star	D306	RD5.6ESB
$\star\star$	IC201,IC202	PA0016	\star	D502-D507,D512-D515	S5566
$\star\star$	IC103	TC9163N			(11E2)
$\star\star$	IC102	TC9164N	\star	D201-D204,D209-D212, D301-D304,D516,D517	1SS252

RELAY

Mark	Symbol & Description	Part No.
△★★	RY501 Relay	ASR-516

TRANSFORMER

Mark	Symbol & Description	Part No.
△★	T501 Power transformer	ATT1066

CAPACITORS

Mark	Symbol & Description	Part No.
△	C511 Power capacitor (0.01/AC400V)	ACG1002
	C512,C513 Power capacitors (0.01/AC150V)	ACG1005
	C501,C502 (8200/71)	ACH1074
	C227-C230	CCCSL101K500
△	C517 Power capacitor (0.01/AC400V)	ACG1003
	C217,C218	CCCSL150K500
	C213,C214,C233,C234	CCCSL220K500
	C103,C104,C107,C108,C203, C204	CKMYB221K50
	C221,C222	CCCSL470J50
	C223-C226	CCCSL680J50
	C125,C205-C208	CCMSL101J50
	C301,C302	CEANP010M50
	C303	CEAS010M50
	C101,C102,C117,C118	CEAS100M25
	C305,C509,C516	CEAS101M25
	C515	CEAS102M25
	C503,C504	CEAS102M35
	C113,C114	CEAS2R2M50
	C105,C106,C115,C116,C510 C304	CEAS470M25 CEAS471M6
	C235,C236	CEXA470M63
	C201,C202	CEYA100M25
	C215,C216,C231,C232,C505, C506	CEYA101M25
	C507,C508	CEYA470M25
	C514	CKCYB103K50
	C209,C210	CKCYB182K50
	C211,C212	CKCYB471K50
	C119-C122,C124	CKCYF473Z50
	C123	CKCYX104M25
	C109,C110	CQMA222J50
	C111,C112	CQMA822J50
	C219,C220	CEYA101M16

RESISTORS

Mark	Symbol & Description	Part No.
	R259,R260 (0.33×2/5W)	ACN-139
	R201,R202,R215-R218	RDR1/4PM□□□J
△	R205,R206,R516	RD1/4PMFL□□□J
△	R247-R250,R307,R237-R240, R301,R302,R253-R256	RD1/4PMF□□□J

Mark	Symbol & Description	Part No.
	R313,R303-R306,R315,R514, R515,R309,R133,R134,R314, R139-R144,R147-R149,R517	RD1/8PM□□□J
△	R505,R501,R503,R245,R246, R251,R252	RFA1/4PS□□□J

Other resistors	RD1/4PM□□□J
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OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (TAPE)	AKB1007
	4P Pin jack (DAT)	AKB1051
	2P Pin jack (PHONO)	AKB1052
	6P Pin jack (CD, TUNER, AUX)	AKB1053
	Transistor socket	AKH-017

Control main assembly (AWZ1772)
SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC601	PDG022
★★	IC602	TA7291S
★★	Q601,Q605,Q606,Q608	RN1201 (DTC143ES)
★★	Q609-Q611	RN2201 (DTA143ES)
★★	Q602,Q603	2SC2235
★★	Q607,Q612-Q614,Q604	2SC2458
★	D614-D616	AEL1053
★	D602-D613,D617,D622	AEL1072
★	D601	AEL1073
★	D635,D636	RD3.0ESB
★	D625	RD4.7ESB2
★	D618-D621,D623,D624, D626-D629,D631-D634, D637-D641	1SS252

SWITCHES

Mark	Symbol & Description	Part No.
★★	S601-S620 Tact switch (POWER, SP-A, SP-B, BASS EQ, AUX, TAPE, TUNER, PHONO, DAT, CD, DAT D, CD D, SOURCE, TUNER, DAT ▶ TAPE, TAPE ▶ DAT, OFF, CD D REC, MUTING, PURE.D.L)	ASG-711 (ASG-703)

CAPACITORS

Mark	Symbol & Description	Part No.
	C606 (47000μF/5.5V)	ACH1037
	C602	CEJAR22M50
	C609,C608	CEJA100M16
	C605	CEJA101M10

Mark	Symbol & Description	Part No.
	C610	CEJA4R7M50
	C603	CKDYB102K50
	C601,C604	CKDYF473Z50
	C607,C611,C612	CKDYX473M25

RESISTORS

Mark	Symbol & Description	Part No.
	R601 - R604, R609, R613, R610	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
★	X601 Ceramic resonator (4.19MHz) Remote control sensor unit	ASS1022 AXX1005

SP assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC401	M5218PF
★★	Q401, Q402	2SC2235
★	D401 - D403	1SS252

RELAYS

Mark	Symbol & Description	Part No.
★★	RY401, RY402 Relay	ASR - 112
★★	RY403 Relay	ASR1005

COILS

Mark	Symbol & Description	Part No.
	L401, L402 AF choke coil (0.7μF)	ATH1011

CAPACITORS

Mark	Symbol & Description	Part No.
	C401, C402, C405, C406	CEAS100M25
	C403, C404	CEAS470M25
	C407 - C410	CFTXA823J50
	C411	CKCYF473Z50

RESISTORS

Mark	Symbol & Description	Part No.
⚠	R415, R416	RD1/4PMFL100J
⚠	R413, R414	RD1/4PMF100J
	R401 - R404, R409, R410, R424	RD1/4PM□□□J
	R427, R429	RS2PMF681J
	R428, R430	RS2PMF821J
	R417, R418	RS2LMF331J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (ADAPTOR)	AKB1033
	8P Speaker terminal (SPEAKERS)	AKE - 111
	Mini jack (CONTROL)	AKN - 207

HEADPHONE assembly

RESISTORS

Mark	Symbol & Description	Part No.
	R425, R426	RS1PMF122J

OTHERS

Mark	Symbol & Description	Part No.
	Headphone jack (PHONES)	AKN1002

TONE assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC702	LC4966
★★	IC701	M5218PF
★★	Q705	RN1201 (DTC143ES)
★★	Q706	RN2201 (DTA143ES)
★★	Q701 - Q704	2SC1740SLN

CAPACITORS

Mark	Symbol & Description	Part No.
	C709, C710	CEASR33M50
	C703, C704	CEASR47M50
	C705, C706	CEAS0R1M50
	C707, C708	CEAS010M50
	C711, C712	CEAS100M25
	C713, C714	CEAS470M25
	C717, C718	CKMYB151K50
	C701, C702	CQMA153K50

RESISTORS

Mark	Symbol & Description	Part No.
★	VR702, VR703 Variable resistor (30k × 2)	ACT1031
★	VR704 Variable resistor (10k × 2)	ACT1032
★	VR701 Variable resistor (5k × 2)	ACT1033
	R731, R732	RD1/4PM331J
	Other resistors	RD1/8PM□□□J

LAMP assembly**RESISTORS**

Mark	Symbol & Description	Part No.
	R647,R650	RS1PMFR47J
	R648,R649,R651,R652	RS1PMF010J

OTHERS

Mark	Symbol & Description	Part No.
★★	PL601 — PL604 Pilot lamp	AEL1050
	Lamp box	AMR1342

VR assembly**COILS**

Mark	Symbol & Description	Part No.
	L701,L702 Axial inductor (5.6 μ H)	LAU5R6K

CAPACITORS

Mark	Symbol & Description	Part No.
	C715,C716	CKCYF473Z50

RESISTOR

Mark	Symbol & Description	Part No.
★	VR705 Variable resistor (100k \times 2)	ACX1012

LED assembly**SEMICONDUCTOR**

Mark	Symbol & Description	Part No.
★	D630 LED	AEL1071

4.2 A — X440**Miscellaneous Parts List****P.C.BOARD ASSEMBLIES**

Mark	Symbol & Description	Part No.
	AF main assembly	AWZ1777
	Control main assembly	AWZ1779
	SP assembly	
	HEADPHONE assembly	
	CONNECTOR assembly	
	TONE assembly	
	LAMP assembly	
	VR assembly	
	LED assembly	

OTHERS

Mark	Symbol & Description	Part No.
★★	Q3,Q4 Transistor	2SA1264N
★★	Q1,Q2 Transistor	2SC3181N

Mark	Symbol & Description	Part No.
△ ★	T1 Power transformer (220V/240V)	ATS1142
△	AC socket (3P OUTLET)	AKP-502
△★★	FU2 Fuse (T2A/250V)	AEK-017
△★★	FU1 Fuse (T2.5A/250V)	AEK-403
△	AC power cord	ADG1021
	Remote control unit	AXD1053

AF main assembly (AWZ1777)**SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
★★	IC101	M5218P
★★	IC501	M5278L56
★★	IC201,IC202	PA0016
★★	IC103	TC9163N
★★	IC102	TC9164N
★★	IC104	μ PD6362C
★★	Q308	RN1201
		(DTC143ES)
★★	Q303	RN2203
		(DTA124ES)
★★	Q105,Q106	2SA1048
★★	Q215,Q216	2SA965
★★	Q201—Q204,Q209, Q210	2SA992
★★	Q306,Q502	2SB560
★★	Q213,Q214	2SC2235
★★	Q207,Q208,Q211,Q212,Q301, Q302,Q307,Q504	2SC2240
★★	Q304,Q305	2SC2458
★★	Q101—Q104	2SC2878
★★	Q501	2SD438
★★	Q503	2SD880
★	D207,D208	HZS4BLL
★	D205,D206	HZS5BLL
★	D501	RBV402
★	D305	RD13ESB
★	D511	RD13ESB1
★	D509,D510	RD16ESB3
★	D306	RD5.6ESB
★	D502—D507,D512—D515	S5566
		(11E2)
★	D201—D204,D209—D212, D301—D304,D516,D517	1SS252

RELAY

Mark	Symbol & Description	Part No.
△★★	RY501 Relay	ASR1012

TRANSFORMER

Mark	Symbol & Description	Part No.
△ ★	T501 Power transformer	ATT1066

CAPACITORS

Mark	Symbol & Description	Part No.
⚠	C511, C517 Power capacitors (0.01/AC400V)	ACG1002
	C512, C513 Power capacitors (0.01/AC150V)	ACG1005
	C501, C502 (5600/56)	ACH1031
	C227-C230	CCCSL101K500
	C217, C218	CCCSL150K500
	C213, C214, C233, C234	CCCSL220K500
	C103, C104, C107, C108, C203, C204	CKMYB221K50
	C221, C222	CCCSL470J50
	C223-C226	CCCSL680J50
	C125, C205-C208	CCMSL101J50
	C301, C302	CEANP010M50
	C303	CEAS010M50
	C101, C102, C117, C118	CEAS100M25
	C516, C219, C220, C231, C232	CEAS101M10
	C305, C505, C506, C509	CEAS101M25
	C515	CEAS102M25
	C503, C504	CEAS102M35
	C113, C114	CEAS2R2M50
	C105, C106, C115, C116, C507, C508, C510	CEAS470M25
	C304	CEAS471M6
	C235, C236	CEXA470M63
	C201, C202	CEYA100M25
	C215, C216	CEYA330M16
	C514	CKCYB103K50
	C209, C210	CKCYB182K50
	C109, C110	CKCYB222K50
	C211, C212	CKCYB471K50
	C111, C112	CKCYB822K50
	C119-C122, C124	CKCYF473Z50
	C123	CKCYX104M25

RESISTORS

Mark	Symbol & Description	Part No.
⚠	R259, R260 (0.33 × 2/5W)	ACN-139
	R201, R202	RDR1/4PM101J
	R205, R206, R516, R247-R250, R307, R237-R240, R301, R302, R253-R256	RD1/4PMF□□□J
	R313, R303-R306, R315, R514, R515, R309, R133, R134, R139- R144, R147-R149, R314, R517	RD1/8PM□□□J
⚠	R505, R501, R503, R245, R246, R251, R252	RFA1/4PS□□□J
	Other resistors	RD1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (DAT, TAPE)	AKB1007
	6P Pin jack (CD, TUNER, AUX)	AKB1024
	2P Pin jack (PHONO)	AKB1039

Control main assembly (AWZ1779)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC601	PDG022
★★	IC602	TA7291S
★★	Q601, Q605, Q606, Q608	RN1201 (DTC143ES)
★★	Q610	RN2201 (DTA143ES)
★★	Q602, Q603	2SC2235
★★	Q607	2SC2458
★	D614-D616	AEL1053
★	D602-D609, D617, D622	AEL1072
★	D601	AEL1073
★	D635, D636	RD3.0ESB
★	D625	RD4.7ESB2
★	D618-D620, D623, D624, D632, D638-D641	1SS252

SWITCHES

Mark	Symbol & Description	Part No.
★★	S601-S612, S618-S620 Tact switch (POWER, SP-A, SP-B, BASS EQ, AUX, TAPE, TUNER, PHONO, DAT, CD, DAT.D, CD.D, CD.D REC, MUTING, PURE.D.L)	ASG-711 (ASG-703)

CAPACITORS

Mark	Symbol & Description	Part No.
	C606 (47000μF/5.5V)	ACH1070
	C602	CEJAR22M50
	C608	CEJA100M16
	C605	CEJA101M10
	C603	CKDYB102K50
	C601, C604	CKDYF473Z50
	C607, C611, C612	CKDYX473M25

RESISTORS

Mark	Symbol & Description	Part No.
	R601-R603, R609, R610, R613	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
★	X601 Ceramic resonator (4.19MHz)	ASS1022
	Remote control sencer unit	AXX1005

**SP assembly
SEMICONDUCTORS**

Mark	Symbol & Description	Part No.
★★	IC401	M5218PF
★★	Q401,Q402	2SC2240
★	D401-D403	1SS252

RELAIIES

Mark	Symbol & Description	Part No.
★★	RY401,RY402,RY403 Relay	ASR1005

COILS

Mark	Symbol & Description	Part No.
	L401,L402 AF choke coil (0.7μH)	ATH1004

CAPACITORS

Mark	Symbol & Description	Part No.
	C401,C402,C405,C406	CEAS100M25
	C403,C404	CEAS470M25
	C411	CKCYF473Z50
	C407-C410	CFTXA823K50

RESISTORS

Mark	Symbol & Description	Part No.
△	R415,R416	RD1/4PMFL100J
△	R413,R414	RD1/4PMF100J
	R401-R404,R409,R410,R424	RD1/4PM□□□J
	R417,R418	RS1LMF□□□J
	R427,R429	RS2PMF471J
	R428,R430	RS2PMF681J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (ADAPTOR)	AKB1033
	8P Speaker terminal (SPEAKERS)	AKE-111
	Mini jack (CONTROL)	AKN-207

HEADPHONE assembly

OTHER

Mark	Symbol & Description	Part No.
	Headphone jack (PHONES)	AKN1002

CONNECTOR assembly

No parts are supplied with the CONNECTOR assembly.

TONE assembly

Refer to A-X540.

LAMP assembly

Refer to A-X540.

VR assembly

COILS

Mark	Symbol & Description	Part No.
	L701,L702 Axial inductor (5.6μH)	LAU5R6K

CAPACITORS

Mark	Symbol & Description	Part No.
	C715,C716	CKCYF473Z50

RESISTOR

Mark	Symbol & Description	Part No.
★	VR705 Variable resistor (100k × 2)	ACX1013

LED assembly

Refer to A-X540.

4.3 A-X340

Miscellaneous Parts List

P.C.BOARD ASSEMBLIES

Mark	Symbol & Description	Part No.
	AF main assembly	AWZ1781
	Control main assembly	AWZ1782
	SP assembly	
	HEADPHONE assembly	
	CONNECTOR assembly	
	TONE assembly	
	LAMP assembly	
	VR assembly	
	LED assembly	

OTHERS

Mark	Symbol & Description	Part No.
★★	Q3,Q4 Transistor	2SA1263N
★★	Q1,Q2 Transistor	2SC3180N
△ ★	T1 Power transformer (220V/240V)	ATS1143
△	AC socket (3P OUTLET)	AKP-502
△★★	FU2 Fuse (T1.25A/250V)	AEK-018
△★★	FU1 Fuse (T2.5A/250V)	AEK-403
△	AC Power cord	ADG-063
	Remote control unit	AXD1052

AF main assembly (AWZ1781)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC101	M5218P
★★	IC501	M5278L56
★★	IC201,IC202	PA0016
★★	IC102	TC9164N
★★	IC104	μPD6362C
★★	Q308	RN1201 (DTC143ES)
★★	Q303	RN2203 (DTA124ES)
★★	Q105,Q106	2SA1048
★★	Q215,Q216	2SA965
★★	Q201,Q202,Q203,Q204,Q209, Q210	2SA992
★★	Q306,Q502	2SB560
★★	Q213,Q214	2SC2235
★★	Q207,Q208,Q211,Q212,Q301, Q302,Q307,Q504	2SC2240
★★	Q304,Q305	2SC2458
★★	Q101-Q104	2SC2878
★★	Q501	2SD438
★★	Q503	2SD880
★	D207,D208	HZS4BLL
★	D205,D206	HZS5BLL
★	D501	RBV402
★	D305	RD13ESB
★	D511	RD13ESB1
★	D509,D510	RD16ESB3
★	D306	RD5.6ESB
★	D502-D507,D512-D515	S5566 (11E2)
★	D201-D204,D209-D212, D301-D304,D516,D517	1SS252

RELAY

Mark	Symbol & Description	Part No.
△★★	RY501 Relay	ASR1012

TRANSFORMER

Mark	Symbol & Description	Part No.
△ ★	T501 Power transformer	ATT1066

CAPACITORS

Mark	Symbol & Description	Part No.
△	C511,C517 Power capacitors (0.01/AC400V)	ACG1002
	C512,C513 Power capacitors (0.01/AC150V)	ACG1005
	C501,C502 (4700/50)	ACH-252
	C227-C230	CCCSL101K500
	C217,C218	CCCSL150K500
	C213,C214,C233,C234	CCCSL220K500
	C103,C104,C107,C108,C203, C204	CKMYB221K50

Mark	Symbol & Description	Part No.
	C221,C222	CCCSL470J50
	C223-C226	CCCSL680J50
	C125,C205-C208	CCMSL101J50
	C301,C302	CEANP010M50
	C303	CEAS010M50
	C101,C102,C117,C118	CEAS100M25
	C516,C219,C220,C231,C232	CEAS101M10
	C505,C506,C509,C305	CEAS101M25
	C235,C236	CEAS101M50
	C515	CEAS102M25
	C503,C504	CEAS102M35
	C113,C114	CEAS2R2M50
	C105,C106,C115,C116,C507, C508,C510	CEAS470M25
	C304	CEAS471M6
	C215,C216	CEYA220M16
	C201,C202	CEYA100M25
	C514	CKCYB103K50
	C209,C210	CKCYB182K50
	C109,C110	CKCYB222K50
	C211,C212	CKCYB471K50
	C111,C112	CKCYB822K50
	C119,C120,C124	CKCYF473Z50
	C123	CKCYX104M25

RESISTORS

Mark	Symbol & Description	Part No.
△	R259,R260 (0.33 × 2/5W)	ACN-139
△	R205,R206,R516	RD1/4PMFL□□□J
	R307,R237-R240,R301,R302, R253-R256,R247-R250	RD1/4PMF□□□J
	R313,R303-R306,R514,R515, R309,R133,R134,R139-R144, R147-R149,R314,R517,R315	RD1/8PM□□□J
△	R505,R501,R503,R245,R246, R251,R252	RFA1/4PS□□□J

Other resistors

RD1/4PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (TAPE, DAT)	AKB1007
	6P Pin jack (CD, TUNER, AUX)	AKB1024
	2P Pin jack (PHONO)	AKB1039

Control main assembly (AWZ1782)

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC601	PDG022
★★	IC602	TA7291S

Mark	Symbol & Description	Part No.
★★	Q601,Q605,Q606,Q608	RN1201 (DTC143ES)
★★	Q610	RN2201 (DTA143ES)
★★	Q602	2SC2235
★★	Q607	2SC2458
★	D602,D604,D605-D609,D617, D622	AEL1072
★	D601	AEL1073
★	D635,D636	RD3.0ESB
★	D625	RD4.7ESB2
★	D618-D620,D623,D624,D632, D638-D641	1SS252

SWITCHES

Mark	Symbol & Description	Part No.
★★	S601-S610,S612,S619,S620 Tact switch (POWER, SP-A, SP-B, BASS EQ, AUX, TAPE, TUNER, PHONO, DAT, CD, DAT.D, CD.D, CD.D REC, MUTING, PURE.D.L)	ASG-711 (ASG-703)

CAPACITORS

Mark	Symbol & Description	Part No.
	C606 (47000 μ F/5.5V)	ACH1070
	C602	CEJAR22M50
	C608	CEJA100M16
	C605	CEJA101M10
	C603	CKDYB102K50
	C601,C604	CKDYF473Z50
	C607,C611,C612	CKDYX473M25

RESISTORS

Mark	Symbol & Description	Part No.
	R601-R603,R609,R610,R613	RD1/4PM□□□J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
★	X601 Ceramic resonator (4.19MHz)	ASS1022
	Remote control sensor unit	AXX1005

SP assembly

SEMICONDUCTORS

Mark	Symbol & Description	Part No.
★★	IC401	M5218PF
★★	Q401	2SC2240
★	D401,D403	1SS252

RELAIRES

Mark	Symbol & Description	Part No.
★★	RY401,RY403 Relay	ASR1005

COILS

Mark	Symbol & Description	Part No.
	L401,L402 AF choke coil (0.7 μ F)	ATH1004

CAPACITORS

Mark	Symbol & Description	Part No.
	C401,C402,C405,C406	CEAS100M25
	C403,C404	CEAS470M25
	C411	CKCYF473Z50
	C407-C410	CQMA823K50

RESISTORS

Mark	Symbol & Description	Part No.
⚠	R415,R416	RD1/4PMFL100J
⚠	R413,R414	RD1/4PMF100J
	R401-R404,R409,R410,R424	RD1/4PM□□□J
	R417,R418	RS1LMF□□□J
	R427,R429	RS2PMF391J
	R428,R430	RS2PMF471J
	Other resistors	RD1/8PM□□□J

OTHERS

Mark	Symbol & Description	Part No.
	4P Pin jack (ADAPTOR)	AKB1033
	4P Speaker terminal (SPEAKERS)	AKE-109
	Mini jack (CONTROL)	AKN-207

HEADPHONE assembly

Refer to A-X440.

CONNECTOR assembly

Refer to A-X440.

TONE assembly

SEMICONDUCTORS



Mark	Symbol & Description	Part No.
★★	IC702	LC4966
★★	IC701	M5218PF
★★	Q705	RN1201 (DTC143ES)
★★	Q706	RN2201 (DTA143ES)
★★	Q701-Q704	2SC1740SLN





CAPACITORS




Mark	Symbol & Description	Part No.
	C709,C710	CEASR33M50

6. IC INFORMATION

MICRO COMPUTER (PDG022)

Terminal No.	Terminal name	I/O	Condition	Terminal status	Remarks												
1	WP	I	Power supply "ON"		If the input frequency is not 50/60Hz the mode will be switched to backup mode.												
2	PA0	O	For A—X540,when control is per-foemed.		Key matrix output												
3	PA1																
4	PA2																
5	PA3																
6	PB0	O															
7	PB1	O			Non used												
8	PB2																
9	PB3																
10	PE0																
11	SP—A	O	SP selector...SP—A	L	SP—A IND illuminates												
12	SP—B	O	SP selector...SP—B	L	SP—B IND illuminates												
13	B•EQ	O	BASS EQ "ON"	H	BASS EQ IND illuminates												
14	AUX	O	When FUNCTION SEL. set at each position.	L	AUX IND illuminates												
15	TAPE	O		L	TAPE IND illuminates												
16	TUNER	O		L	TUNER IND illuminates												
17	PHONO	O		L	PHONO IND illuminates												
18	DAT	O		L	DAT IND illuminates												
19	CD	O		L	CD IND illuminates												
20	PC2	O	Non used												
21	PC3	O															
22	DAT.D	O	DAT DIRECT "ON"	H	DAT DIRECT IND illuminates												
23	CD.D	O	CD DIRECT "ON"	H	CD DIRECT IND illuminates												
24	UP	O	VOLUME CONTROL		<table><tr><td>MODE</td><td>Terminal No.</td><td>24</td><td>25</td></tr><tr><td>VOL.UP</td><td></td><td>H</td><td>L</td></tr><tr><td>VOL.DOWN</td><td></td><td>L</td><td>H</td></tr></table>	MODE	Terminal No.	24	25	VOL.UP		H	L	VOL.DOWN		L	H
MODE	Terminal No.	24	25														
VOL.UP		H	L														
VOL.DOWN		L	H														
25	DOWN	O	UP/DOWN														
26	SOURCE	O	When REC SEL. set at each posi-tion.	L	SURCE IND illuminates												
27	TUNER	O		L	TUNER IND illuminates												
28	DAT→T	O		L	DAT→T IND illuminates												

Terminal No.	Terminal name	I/O	Condition				Terminal status	Remarks
29	TAPE→D	O	When REC SEL. set at each position.				L	TAPE→D IND. illuminates
30	CD.D.REC	O	CD DIRECT REC "ON"				L	CD DIRECT IND illuminates
31	NC	...	.....				.....
32	V _{ss}		GND					
33	MUT IND	O	MUTING "ON"				H	Red IND illuminates
34	VR IND	O	Power supply "ON"				H	Yellow IND illuminates
35	PURE DIRECT	O	LINE DIRECT				L	
36	XTAL	O	Connect Crystal resonator (4.19MHz)					CLOCK oscillating terminal (For A-X540, oscillation is made if necessary.)
37	EXTAL	I						
38	RESET	I	When inputting RESET pulse					
39	PX ₀ /SC	I	.....					GND.
40	PX ₁ /SOB	I	Model Teraminal NO.	A-X540	A-X440	A-X340	By arranging the terminal levels of Pins 40 and 41 as shown in the table, the program can be adjusted to the each models.	
41	PX ₂ /SOA	I	40	H	L	L		
			41	L	H	L		
42	PX ₃ /SI	I	.....				.....	GND
43	F•MUTE	O	When switching over FUNCTION, CD or DAT DIRECT.					Prevents click noise
			During -∞ MUTING				H	
44	B.EQ CONT.	O	BASS EQ "ON"				H	Activates BASS EQ circuit
45	PY ₂ /WP	I	The IC601 (PDG022) is a "SUPERSILENT" micro computer which oscillates the CLOCK only when necessary (only A-X540). Therefore, this terminal will oscillate the CLOCK when the respective button on the front panel is pressed or when CLOCK oscillation is required. If, for example, a "H" signal is input when pressing the button, the terminal oscillates CLOCK and will determine the function. After the necessary actions, it stops CLOCK again and enters the STOP mode.					
46	REM IN	I						
47	ST-BY	O	Power supply "ON"				H	Relay (RY501) "ON"
48	PROTECTION	O	Power supply "ON"				H	Controls relay for SP (RY401 and RY402) and relay for HP (RY403).
			(7 seconds after power Supply ON.)				(L)	
49	SP-B	O	SP SELECTOR "SP-B"				H	Controls relay for SP-B (RY402).
50	SP-A	O	SP SELECTOR "SP-A"				H	Controls relay for SP-A (RY401).
51	PMO	O	.....				.....	Non used
52	MUTING	O	During MUTING (-20dB)				H	ON/OFF of -20dB MUTING.
53	D.OFF	O	LINE DIRECT "OFF"				L	

Terminal No.	Terminal name	I/O	Condition	Terminal status	Remarks
54	DAT.D	O	DAT DIRECT "ON"	L	
55	CD.D	O	CD DIRECT "ON"	L	
56	CK	O	When FUNCTION was changed.		For controlling FUNCTION.
57	DATA				
58	ST				
59	ST-BY IND	O	During STAND-BY.	L	STAND-BY IND illuminates
60	PJ ₀	I	For A-X540, when the control action is performed.		Key matrix input
61	PJ ₁				
62	PJ ₂				
63	PJ ₃				
64	V _{DD}	...	.....		+5V Power supply terminal

7. SPECIFICATIONS

A-X540

Amplifier Section

DIN continuous power output (both channels driven)	
1 kHz, 1%, 8Ω	100W + 100W
DIN music power (both channels driven)	
1 kHz, 1%, 8Ω	160W + 160W
Continuous power output (both channel driven)	
20 Hz to 20 kHz, T.H.D 0.3%, 8Ω	85W + 85W
IEC Continuous power output (both channel driven)	
63 Hz to 12.5 kHz, T.H.D 0.7%, 8Ω	95W + 95W
Total harmonic distortion *	
1 kHz, 50W, 8Ω	0.005% *
Input (sensitivity/impedance)	
PHONO	2.5 mV/50 kΩ
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	150 mV/50 kΩ
Overload level	
PHONO 1 kHz, 0.1%	150 mV
Output level	
TAPE REC, DAT REC, ADAPTOR OUT	150 mV
Frequency Response	
PHONO	20 Hz to 20 kHz ±0.5 dB
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	10 Hz to 100 kHz $\begin{smallmatrix} +1 \\ -3 \end{smallmatrix}$ dB
CD (CD DIRECT ON)	10 Hz to 100 kHz $\begin{smallmatrix} +1 \\ -3 \end{smallmatrix}$ dB
Tone Control	
BASS	±8 dB (100 Hz)
TREBLE	±8 dB (10 kHz)
BASS EQUALIZER	(MAX) +10 dB (60 Hz)
MUTING	-20 dB/-∞
Signal-to-Noise ratio (IHF short circuited, A network)	
PHONO	72 dB
CD (CD DIRECT ON)	102 dB
Signal-to-Noise ratio (DIN, continuous power/50 mW)	
PHONO	68 dB/60 dB
CD (CD DIRECT ON)	82 dB/62 dB
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	82 dB/62 dB

Power Supply/Miscellaneous

Power requirements	
European model	AC220 V—, 50/60 Hz
U.K. model	AC240 V—, 50/60 Hz
Other destination models	—AC 110 V/120-127 V/220 V/240 V (switchable), 50/60 Hz
Power consumption	
European model	480W
U.K. model	480W
AC outlets	
U.K. model	
switched (× 3)	100W
Other destination models	
switched (× 2)	100W
Unswitched (× 1)	100W
Dimensions	360 (W) × 349 (D) × 115 (H) mm 14-1/8 (W) × 13-3/4 (D) × 4-1/2 (H) in
Weight	8.5 kg (18 lb 13 oz)

Accessories

Remote control unit	1
Batteries AAA/R03	2
Operating instructions	1

- Specifications and design subject to possible modification without notice due to improvements.

* Measured by Audio Spectrum Analyzer.

A-X440, A-X340

A-X440

Amplifier Section

DIN continuous power output (both channels driven)	
1 kHz, 1%, 8 Ω	65 W + 65 W
DIN music power (both channels driven)	
1 kHz, 1%, 8 Ω	120 W + 120 W
Continuous power output (both channels driven)	
20 Hz to 20 kHz, T.H.D 0.3%, 8 Ω	55 W + 55 W
IEC continuous power output (both channels driven)	
63 Hz to 12.5 kHz, T.H.D 0.7%, 8 Ω	60 W + 60 W
Total harmonic distortion	
1 kHz, 35 W, 8 Ω	0.005% *
Input (sensitivity/impedance)	
PHONO.....	2.5 mV/50 k Ω
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	
.....	150 mV/50 k Ω
Overload level	
PHONO 1 kHz, 0.1%.....	150 mV
Output (level/impedance)	
TAPE REC, DAT REC, ADAPTOR OUT.....	150 mV
Frequency Response	
PHONO.....	20 Hz to 20 kHz ± 0.5 dB
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	
.....	10 Hz to 70 kHz $\pm 1/3$ dB
CD (CD DIRECT ON).....	10 Hz to 100 kHz $\pm 1/3$ dB
Tone Control	
BASS.....	± 8 dB 100 Hz
TREBLE.....	± 8 dB 10 kHz
BASS EQUALIZER.....	+10 dB (60 Hz)
MUTING.....	-20 dB/- ∞
Signal-to-Noise ratio (IHF short circuited, A network)	
PHONO.....	72 dB
CD (CD DIRECT ON).....	100 dB
Signal-to-Noise ratio (DIN, continuous power/50 mW)	
PHONO.....	68 dB/60 dB
TUNER, CD, AUX, TAPE PLAY, DAT PLAY, ADAPTOR	
.....	82 dB/62 dB
CD (CD DIRECT ON).....	82 dB/62 dB

Power Supply/Miscellaneous

Power requirements	
U.K., Australian models.....	~ AC 240 V, 50/60 Hz
Other destination models.....	~ AC 110 V/120 - 127 V/ 220 V/240 V (switchable), 50/60 Hz
Power consumption	
Other destination models.....	390 W
U.K., Australian models.....	390 W
AC outlets	
U.K. model	
Switched ($\times 3$).....	100 W
Other destination models	
Switched ($\times 2$).....	100 W
Unswitched ($\times 1$).....	100 W
Dimensions.....	360 (W) \times 346 (D) \times 115 (H) mm 14-3/16 (W) \times 13-5/8 (D) \times 4-9/16 (H) in
Weight.....	6.6 kg (14 lb 9 oz)

Accessories

Operating instructions.....	1
Remote control unit.....	1
Batteries (AAA/R03).....	2

- Specifications and design subject to possible modification without notice due to improvements.
- *Measured by Audio Spectrum Analyzer.

A-X340

Amplifier Section

DIN continuous power output (both channels driven)	
1 kHz, 1%, 8 Ω	45 W + 45 W
DIN music power (both channels driven)	
1 kHz, 1%, 8 Ω	85 W + 85 W
Continuous power output (both channels driven)	
20 Hz to 20 kHz, T.H.D 0.5%, 8 Ω	30 W + 30 W
IEC continuous power output (both channels driven)	
63 Hz to 12.5 kHz T.H.D 0.7%, 8 Ω	40 W + 40 W
Total harmonic distortion	
1 kHz, 25 W, 8 Ω	0.005% *
Input (sensitivity/impedance)	
PHONO.....	2.5 mV/50 k Ω
TUNER, CD, AUX, TAPE PLAY, ADAPTOR.....	150 mV/50 k Ω
Overload level	
PHONO 1 kHz, 0.1%.....	150 mV
Output	
TAPE REC, ADAPTOR OUT.....	150 mV
Frequency Response	
PHONO.....	20 Hz to 20 kHz ± 0.5 dB
TUNER, CD, AUX, TAPE PLAY, ADAPTOR	
.....	10 Hz to 100 kHz $\pm 1/3$ dB
CD (CD DIRECT ON).....	10 Hz to 100 kHz $\pm 1/3$ dB
Tone Control	
BASS.....	± 8 dB (100 Hz)
TREBLE.....	± 8 dB (10 kHz)
BASS EQUALIZER.....	+8 dB (60 Hz)
MUTING.....	-20 dB/- ∞
Signal-to-Noise ratio (IHF short circuited, A network)	
PHONO.....	72 dB
CD (CD DIRECT ON).....	100 dB
Signal-to-Noise ratio (DIN, continuous power/50 mW)	
PHONO.....	68 dB/60 dB
TUNER, CD, AUX, TAPE PLAY, ADAPTOR.....	82 dB/62 dB
CD (CD DIRECT ON).....	82 dB/62 dB

Power Supply/Miscellaneous

Power requirements	
European model.....	~ AC 220 V, 50/60 Hz
U.K., Australian models.....	~ AC 240 V, 50/60 Hz
Power consumption	
European model.....	250 W
U.K., Australian models.....	250 W
AC outlets	
Switched ($\times 3$).....	100 W
Dimensions.....	360 (W) \times 346 (D) \times 115 (H) mm
Weight.....	5.9 kg

Accessories

Operating instructions.....	1
Remote control unit.....	1
Batteries (AAA/R03).....	2

- Specifications and design subject to possible modification without notice due to improvements.
- *Measured by Audio Spectrum Analyzer.